

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



United States
Department of
Agriculture

Science and
Education
Administration

August 1980



Review of the Bankhead-Jones Program:

Final Report

AD-33 Bookplate
(1 - 63)

NATIONAL



AGRICULTURAL LIBRARY

Review of the Bankhead-Jones Program:

Final Report

U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY

FEB 26 1981

CATALOGING = PREP.,

John A. Michael
Program Analysis Staff
Joint Planning and Evaluation

Science and Education
Administration

United States Department of Agriculture

Washington D.C. 20250

PREFACE

This report reviews the Bankhead-Jones program, undertaken by the U.S. Department of Agriculture in response to Amendment No. 37, Conference Report 96-553 on H.R. 4387, the Agriculture, Rural Development and Related Agencies Appropriations Bill, 1980. The review has been conducted in accordance with the Conference Report directive that the Department, along with appropriate nongovernmental representatives, conduct a detailed review of the Bankhead-Jones program, including the original intent of the legislation, and report the findings to the appropriate committees of Congress by March 1, 1980.

In March, the Department of Agriculture provided an interim report of the preliminary findings of this review. The contents of the final report are generally consistent with those set forth in the interim report. The final report includes more data as well as appendices pertaining to the basic legislation, budget request and related Congressional testimony, and the methods used in conducting the review. As indicated in the interim report, the final report examines the inflation and population changes since 1960 and analyzes the distribution of Bankhead-Jones funds in relation to full-time-equivalent enrollments.

Direction of the review project has been shared by Drs. Jane Roth and John Michael. Dr. Roth directed the initial stages of the review project--overseeing its design, data collection, and early versions of the report. Dr. Michael assumed responsibility for the remainder of the project, including preparation of the interim and final reports. General guidance and direction has been generously provided by Dr. John M. Brazzel, Chief of the Program Analysis Staff in Joint Planning and Evaluation, Science and Education Administration (SEA), U.S. Department of Agriculture.

Special thanks go to Dr. Robert L. Clodius, President of the National Association of State Universities and Land-Grant Colleges (NASULGC); Dr. Russell C. McGregor, Director, Office of Governmental Relations, Energy and Natural Resources; and Lowell Lewis, Director, Office of Governmental Relations, Agriculture, NASULGC. They greatly aided this review by conducting a survey of land-grant institutions and providing a forum for U.S. Department of Agriculture personnel to meet with both land-grant and non-land-grant representatives. The names of those representatives, who gave freely of their time and thoughts, appear in Appendixes G and I of this report. Special mention is made of Dr. Robert W. MacVicar, President of Oregon State University, who chaired these meetings.

Members of the NASULGC Resident Instruction Committee on Organization and Policy have remained attentive and helpful throughout the review. Drs. William H. Kelly, Association Dean for Instruction of the University of Vermont, and George Sledge, Associate Dean of the University of Wisconsin-Madison deserve special mention in this regard. Finally, Dr. B. Rodney Bertramson of Washington State University and consultant for NASULGC, gave unstinting assistance throughout the study period.

Molly Frantz, Budget Examiner, Agriculture Branch, Office of Management and Budget, provided guidance and suggestions at every stage of this review. Robert Yuill and Paul Horn of the National Center for Education Statistics, U.S. Department of Education, prepared special tabulations for this report pertaining to land-grant and non-land-grant institutions with data from the Higher Education General Information Survey.

Within the Department, gratitude is expressed to Dr. Homer C. Folks, Assistant Director, Higher Education at the time of this review, for insights into the program and reviews of earlier drafts of this manuscript. Generous assistance to this study was also given by Dr. Lynn Maish of the Office of Budget Planning and Evaluation. Dr. Timothy H. Blosser, Program Coordinator, Program Planning Staff in Joint Planning and Evaluation, SEA; Sheila H. Gillette, Economist, Program Planning Staff, Joint Planning and Evaluation, SEA; and Dr. Ted N. Tschudy, Management Analyst, Organization and Management Staff, SEA, also helped the project in its early stages.

As consultants for this review, Dr. Joel Aronson, Katherine M. Loughlin, Carol Novalis, Maria F. Owings, Dr. Patricia G. Thompson, and Dr. Russell I. Thackery assisted in the collection and analysis of data and the preparation of the interim report. The interim report was typed by Sharon W. Berry, Kathleen Bundick, Cheryl Cohen, and Gloria Robinson. Elnora E. Hunter typed the final report with assistance from Deborah Cooke, Jeanette McDougal, Gloria Robinson, and Vanessa Shorter.

Space limitations preclude further recounting of the many persons who lent assistance willingly and without whose help this report would not be possible.

TABLE OF CONTENTS

| | Page |
|--|------|
| Preface | iii |
| Executive Summary | ix |
| | |
| Auspices and Scope of Review | ix |
| Legislative Intent | ix |
| Designation of Land-Grant Institutions | ix |
| Appropriations for Bankhead-Jones and Morrill-Nelson | x |
| Administration | x |
| Funding Policy | x |
| Uses of Bankhead-Jones and Morrill-Nelson Funds | xi |
| Program Funds Relative to Total Instructional Budget | xi |
| Distribution of Bankhead-Jones and Morrill-Nelson Funds by Size of Institution, Region, and Land-Grant Status | xii |
| Size | xii |
| Region | xii |
| Land-Grant Status | xii |
| Perspectives of Land-Grant Officials | xiii |
| Higher-Education Participation in Agriculture and Engineering | xiii |
| | |
| I. Overview | |
| | |
| Introduction | 1 |
| Auspices for the Review | 1 |
| Procedures Used in Review | 1 |
| Organization of Report | 3 |
| | |
| II. Review | |
| | |
| A. Federal Legislation Funding, and Ad- ministration | |
| | |
| Legislative History | 4 |
| Introduction | 4 |
| Scope of Intent and Review | 4 |
| Morrill Act of 1862 | 4 |
| Morrill Act of 1890 | 6 |
| 1907 (Nelson) Amendment to the Morrill Act of 1890 | 6 |
| Bankhead-Jones Act of 1935 (Title II, Section 22) | 6 |
| 1960 Amendment to Title II, Section 22, of the Bankhead-Jones Act of 1935 | 7 |
| Title XIV of the Food and Agriculture Act of 1977 | 7 |
| The Department of Education Organization Act (1979) | 7 |
| Summary | 7 |

| | Page |
|--|------|
| Designation of Land-Grant Institutions | 7 |
| Funding Level | 8 |
| Current Allocations Under Bankhead-Jones and Morrill-Nelson | 8 |
| Funding History | 12 |
| Inflation and Population Increases | 12 |
| Administration | 15 |
| Funding Policy | 16 |

**B. Uses of Bankhead-Jones
and Morrill-Nelson
Funds, Fiscal
Year 1979**

| | |
|---|----|
| Uses of Bankhead-Jones and Morrill-Nelson Funds by Areas of Instruction | 20 |
| Bankhead-Jones and Morrill-Nelson Funds Relative to Total Instructional Expenditures | 22 |
| Distribution of Bankhead-Jones and Morrill-Nelson Funds ... Size of Institution | 24 |
| Region | 27 |
| Land-Grant Status | 27 |
| Interpretative Note | 31 |
| Activities Funded by Bankhead-Jones and Morrill-Nelson Funds | 31 |
| Land-Grant Perspectives About the Bankhead-Jones Program .. | 33 |

LIST OF APPENDIXES

| Legislative and Administrative Actions | | Page |
|--|--|------|
| Appendixes | | |
| A. Congressional Directive for Review of Bankhead-Jones Program | | 36 |
| B. Federal Laws, Rulings, and Opinions Related to Bankhead-Jones | | 37 |
| C. Legislative History | | 48 |
| D. Rationales for the Continuation or Discontinuation of the Bankhead-Jones and Morrill-Nelson Programs | | 60 |
| E. Bibliography for Legislative and Funding History | | 72 |

| Communications with Nongovernmental Representatives | Page |
|---|-------|
| Appendixes | |
| F. Letter about Meeting of November 28, 1979 | 76 |
| G. Participants at November 28, 1979 Meeting | 77 |
| H. Letters about Meeting of January 11, 1980 | 78 |
| I. Participants at January 11, 1980 Meeting | 81 |
| | |
| Mail Survey | |
| J. Mail Survey Methodology | 82 |
| K. Identification of Land-Grant Institutions | 86 |
| L. Participation in Mail Survey | 92 |
| M. Mail Questionnaire and Tabulation of Responses | 94 |
| | |
| Telephone Survey | |
| N. Telephone Survey Methodology | 117 |
| O. List of Respondents to Telephone Survey | 119 |
| P. Telephone Interview Schedule and Tabulation of Responses | 121 |
| Q. Examples of Comments by Officials from Land-Grant Institutions About the Bankhead-Jones Program | 126 |
| | |
| Ancillary Data | |
| R. Other Data Sources | 130 |
| S. Higher-Education Participation in Agriculture and Engineering | 142 |
| | |
| LIST OF ILLUSTRATIONS | |
| Chart | |
| 1. Chart of Legislative History | 5 |
| | |
| LIST OF TABLES | |
| Table | |
| 1. Total and variable grant payments under the Bankhead- Jones Act by State:fiscal year 1980 | 9 |
| 2. Amount of Bankhead-Jones and Morrill-Nelson funds reported by land-grant institutions: fiscal year 1979 | 10-11 |
| 3. Authorization level for Bankhead-Jones and Morrill-Nelson before and after 1960 Amendment | 14 |
| 4. Support level for Bankhead-Jones and Morrill-Nelson, restated in terms of inflation and population increase since 1960 Amendment | 15 |

Table

| | | |
|------|--|-------|
| 5. | Budget request to Congress and appropriation for Bankhead-Jones and Morrill-Nelson programs: fiscal years 1960-1981 | 18-19 |
| 6. | Expenditure of Bankhead-Jones funds, by discipline, using alternative classifications:fiscal year, 1979 .. | 21 |
| 7. | Expenditure of Bankhead-Jones and Morrill-Nelson funds, by discipline:fiscal year 1979 | 23 |
| 8. | Size of enrollment, expenditure of Bankhead-Jones and Morrill-Nelson funds and total instructional expenditures, by discipline:fiscal year 1979 | 25 |
| 9. | Amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions, by total enrollment:fiscal year 1979 | 26 |
| 10. | Amount of Bankhead and Morrill-Nelson funds received by land-grant institutions per full-time-equivalent student, by total enrollment:fiscal year 1979 | 26 |
| 11. | Amount of Bankhead-Jones and Morrill-Nelson funds received by States in different regions:fiscal year 1979 | 28 |
| 12. | Amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions in different regions:fiscal year 1979 | 28 |
| 13. | Amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions per full-time-equivalent student, by region:fiscal year 1979 | 29 |
| 14. | Amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions, by land-grant status:fiscal year 1979 | 30 |
| 15. | Amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions per full-time-equivalent student, by land-grant status:fiscal year 1979 | 30 |
| D-1. | Support received from developing institutions program, by land-grant status, and percentage of total developing institutions funds received by land-grant institutions:fiscal year 1971-1979 | 71 |
| S-1. | Fall enrollment in all institutions of higher education, 4-year institutions, and land-grant institutions: United States and outlying areas, 1960-1978 | 143 |
| S-2. | Percent of degrees in engineering awarded by land-grant institutions by degree level and specialty: United States and outlying areas, 1977-1978 | 148 |

EXECUTIVE SUMMARY

Auspices and Scope of Review

This report reviews the Bankhead-Jones and Morrill-Nelson programs, which support instruction at land-grant institutions in agriculture, mechanical arts, and related areas. The review was undertaken in response to Amendment No. 37, Conference Report 96-553 on H.R. 4387, the Agriculture, Rural Development and Related Agencies Appropriations Bill, 1980, which directed the U.S. Department of Agriculture, along with appropriate nongovernmental representatives, to conduct a detailed review of the Bankhead-Jones program, including the original intent of the legislation, and report the findings to Congress.

The report describes the legislative history of the Bankhead-Jones and Morrill-Nelson programs along with their funding and administrative histories. Information is presented on how program funds were distributed and used. Also presented are the perspectives of land-grant officials on the significance of these programs.

The central finding of the review is that the funds are used by land-grant institutions in a manner consistent with the legislative intent.

Legislative Intent

The basic legislation for support of instruction in higher education in agriculture and mechanical arts includes the Morrill Act of 1862, the Morrill Act of 1890, as amended by the (1907) Nelson Amendment, and the Bankhead-Jones Act of 1935, as amended in 1960. These statutes provide broad discretion to the land-grant institutions in the use of Bankhead-Jones and Morrill-Nelson funds for purposes of instruction in agriculture, the mechanical arts, and related subjects. Federal law stipulates the broad purposes of the land-grant system and assigns States broad responsibility for the manner in which the general requirements of the land-grant legislation are carried out.

Designation of Land-Grant Institutions

Land-grant institutions are colleges or universities designated by a State legislature to receive the benefits of the Morrill Act of 1862, the Morrill Act of 1890, and subsequent legislation, including the Nelson Amendment of 1907 and the Bankhead-Jones Act of 1935, as amended. Land-grant institutions now exist in all 50 States, the District of Columbia, Guam, Puerto Rico and the Virgin Islands.

Sixteen of the 17 States with two land-grant institutions established an "1890" land-grant institution for black students under the provisions of the Morrill Act of 1890, which allowed States to establish separate land-grant institutions for black and white students, provided the States distribute program funds in a "just and equitable" manner. Oversight authority for this determination is currently vested in the Secretary of Education.

Appropriations for Bankhead-Jones and Morrill-Nelson

The Bankhead-Jones Act authorizes an appropriation to be allocated among eligible jurisdictions in two ways: a portion of the Bankhead-Jones funds are allocated to the eligible jurisdiction in equal shares, and the remainder in proportion to their population. The current Bankhead-Jones authorization is \$12.46 million. An amount of \$8.1 million is distributed in uniform grants of \$150,000 to each jurisdiction, and the balance (up to \$4.36 million) in the proportion which the total population of each jurisdiction bears to the total population of all jurisdictions. The Morrill-Nelson Act provides a permanent appropriation of \$2.7 million, with each eligible jurisdiction receiving a sum of \$50,000. In 1979 and 1980, appropriations were \$11.5 million for Bankhead-Jones and \$2.7 million for Morrill-Nelson.

The authorization level set by the Bankhead-Jones Act of 1935 was increased in 1960 to adjust the level of support of the Bankhead-Jones program to an amount equal to the 1935 level. The increase was predicated on a population increase of 40 percent and inflation of 100 percent over the 1935 - 1960 period.

Administration

The U.S. Department of Health, Education, and Welfare (HEW) administered both the Bankhead-Jones and Morrill-Nelson programs beginning in 1953. Since 1978, that responsibility has been shared by two agencies. The Food and Agriculture Act of 1977 (P.L. 95-113) transferred responsibility for the administration of Bankhead-Jones funds to the U.S. Department of Agriculture on January 31, 1978. However, with respect to compliance by land-grant institutions with the statutory terms and conditions imposed by the first and second Morrill Acts, as amended (which include the 1907 Nelson Amendment and the Bankhead-Jones Act of 1935, as amended), oversight authority is now vested in the Secretary of Education, under the provisions of the Department of Education Organization Act (P.L. 96-459). The Secretary of Education also administers Morrill-Nelson funds.

Funding Policy

Since 1971, the executive branch has requested a zero Bankhead-Jones appropriation in 9 years and \$11.5 million in the remaining 2 years. Congress has appropriated funds for Bankhead-Jones throughout this period, but at less than full authorization. Factors offered in support of, and in opposition to, continued funding were abstracted from legislative proceedings. The following factors have been advanced in support of continued fundings since 1960:

- need of funds on the part of land-grant institutions;
- the Nation's reliance on land-grant institutions for a trained and educated workforce;

- extension of the benefits of higher education to a larger segment of the population;
- an example of effective Federal-State cooperation in financing higher education; and
- strengthening programs of training and research in food and agricultural sciences.

Factors against funding included:

- the funds represent a small source of revenue for land-grant institutions;
- inequity in funding a program that reaches only land-grant institutions;
- inability to target funds to institutions with special needs;
- availability of alternative funding through HEW's Strengthening Developing Institutions program;
- a shift in educational policy toward student assistance and away from institutional aid; and
- most of the funds do not directly support agricultural education.

Uses of Bankhead-Jones and Morrill-Nelson Funds

Land-grant institutions have expended Bankhead-Jones funds in accordance with the law. The largest share of funds (37 percent) went to agriculture and closely allied disciplines; engineering received 28 percent, and other disciplines 35 percent. Approximately four out of every five Bankhead-Jones dollars were allocated to salaries, the remainder to instructional equipment. Morrill-Nelson funds were expended in similar fashion. Among the uses of Bankhead-Jones and Morrill-Nelson funds in 1978-79 were these: faculty salaries, including guest faculty and special professional positions; special events such as programs and guest speakers; curriculum development; field trips; student support; and library acquisitions and other instructional materials.

Program Funds Relative to Total Instructional Budget

Bankhead-Jones accounted for 0.4 percent of all instructional expenditures for those land-grant institutions responding to the mail survey. Bankhead-Jones and Morrill-Nelson funds together accounted for 0.5 percent of instructional expenditures. These funds generally constituted a larger share of the instructional budget of smaller institutions.

Specifically, Bankhead-Jones and Morrill-Nelson represented 1.3 percent of the instructional budget of institutions with a full-time equivalent (FTE) enrollment under 10,000 (which includes all 1890 schools), 0.6 percent for institutions between 10,000 and 20,000, and 0.3 percent for institutions over 20,000.

Distribution of Bankhead-Jones and Morrill-Nelson Funds by Size of Institution, Region, and Land-Grant Status

The enabling legislation specifies that Morrill-Nelson and a part of Bankhead-Jones funds be distributed in uniform grants to eligible jurisdictions, along with a variable grant under Bankhead-Jones determined by the proportion which the total population of the State bears to the total population of all States. The effect of these distributive guidelines upon land-grant institutions varying in size, region, and land-grant status follows.

Size. In absolute dollar amounts, institutions with larger enrollments averaged more Bankhead-Jones funds than smaller institutions. Specifically, institutions with full-time-equivalent (FTE) enrollments over 20,000 received an average of \$235,000 in 1978-79; those with FTE enrollments between 10,000 and 20,000 averaged \$178,000; and institutions with FTE enrollments under 10,000 received an average of \$102,000.

However, smaller institutions received more support per full-time-equivalent student. Institutions with an FTE enrollment over 20,000 received on the average less than 7 dollars of Bankhead-Jones funds per FTE student. This compares with \$14 per FTE student for institutions enrolling 10,000 - 20,000 and over \$20 for institutions under 10,000 in size.

Region. Institutions in most Southern States and in several Northeastern States received smaller amounts of Bankhead-Jones and Morrill-Nelson funds than institutions in other regions, because of the presence of two land-grant institutions in those States. Specifically, institutions in the South received an average of \$115,000 in Bankhead-Jones and \$27,000 in Morrill-Nelson funds. Institutions in the north central region averaged the largest amount of Bankhead-Jones funds (\$206,000), while institutions in the West received the largest average amount of Morrill-Nelson funds (\$50,000).

Land-Grant Status. 1890 institutions received an average of \$69,000 in Bankhead-Jones and Morrill-Nelson support in 1978-79, compared with an average of \$198,000 on the part of 1862 institutions in the same States. This represents the established pattern for dividing Bankhead-Jones and Morrill-Nelson funds over at least the past 14 years. As for support per FTE student, 1890 institutions received an average of \$21 per FTE student, compared with \$10 for the 1862 institutions in the same

States. Comparing 1862 institutions in States which have no 1890 institution, those with FTE enrollments under 10,000 averaged \$28 per FTE student, while those with larger enrollments averaged \$10.

Perspectives of Land-Grant Officials

Officials of land-grant institutions perceived the benefits of Bankhead-Jones funds as follows:

- Opportunity for enhancement and enrichment of programs;
- resources for improving the quality of programs, staff capability, and service to students;
- impetus for redesign of curricular offerings; and
- resources for adding faculty and facilities.

The main features of these programs, as campus officials see it, are as follows:

- flexibility in determining use;
- availability of "seed" money;
- extra funds available for improving the quality of programs; and
- the commitment of the Federal Government to the land-grant concept in the provision of higher education as well as in research and extension.

The land-grant officials also indicated that the funds serve a number of other purposes:

- they specifically reflect a Federal commitment to higher education in agriculture and engineering;
- they support instruction that otherwise may require a hike in student fees; and
- they support land-grant institutions' contribution to technological advances in agriculture to meet the world's food and agricultural needs.

Higher-Education Participation in Agriculture and Engineering

From 1960 to 1975, total enrollment at land-grant institutions increased from 629,000 to 1.4 million. Between 1975 and 1978, however, enrollment at land-grant institutions declined by approximately 55,000 students, while enrollment at other institutions offering four or

more years of higher education grew by nearly 94,000. From 1960 to 1978, the proportion of students in higher education who attended land-grant institutions decreased from 17.4 percent to 12.1 percent.

Slightly more than 147,000 students were enrolled in agriculture and natural resources throughout the United States and outlying areas in fall 1978. This represents a decline of 6 percent in agriculture enrollment since 1976. Of all those enrolled in agriculture in fall 1978, 60 percent attended land-grant institutions. Land-grant institutions conferred 73 percent of all bachelor's degrees awarded in agriculture in 1977-78 in the United States and outlying areas. The comparable statistics for the master's and doctor's levels were 81 and 95 percent.

Slightly more than 521,000 students enrolled in engineering throughout the United States and outlying areas in fall 1978. Since 1976, engineering enrollment increased by 14 percent. Of all engineering enrollees in fall 1978, 30 percent attended land-grant institutions. Land-grant institutions conferred 35 percent of the bachelor's degrees awarded in engineering in 1977-78. The comparable statistics for the master's and doctor's levels were 37 and 51 percent.

Review of the Bankhead-Jones Program: Final Report

I. OVERVIEW

Introduction

This report reviews the Bankhead-Jones program. The Morrill-Nelson program has been included as an integral part of the review because it is identical in purpose and administratively related.

Both the Morrill Act of 1890, as amended by the Nelson Amendment in 1907, and the Bankhead-Jones Act of 1935, as amended in 1960, authorize funds for the support of instruction at land-grant institutions in agriculture, the mechanical arts (engineering), and related areas. The 1980 appropriations for the two programs were \$2,700,000 for Morrill-Nelson and \$11,500,000 for Bankhead-Jones. The Morrill-Nelson program is a permanent appropriation available each year, while Bankhead-Jones has to be appropriated annually.

Auspices for the Review

The review was undertaken in response to the congressional directive of October 24, 1979, that the U.S. Department of Agriculture

along with appropriate nongovernmental representatives conduct a detailed review of the Bankhead-Jones program, including the original intent of the legislation, and report their findings to the appropriate committees of Congress by March 1, 1980. ^{1/}

The conferees also expressed an interest in targeting Bankhead-Jones grants to instruction in agricultural education.

The conferees will expect that, to the maximum extent possible, these grants will be used only in support of agriculture education as discussed in the Senate report. ^{2/}

Procedures Used in Review

In response to the above directive, a study group was formed within the Joint Planning and Evaluation Staff of the Science and Education Administration of the U.S. Department of Agriculture. Consultative relations were established and maintained throughout this review with the National Association of State Universities and Land-Grant Colleges as well as officials in both land-grant and nonland-grant institutions.

^{1/} House Report 96-553, p. 16, which accompanied H.R. 4387, the Conference Report of the Agriculture, Rural Development and Related Agencies Appropriation Bill, 1980.

^{2/} Ibid.

Review of the Bankhead-Jones and Morrill-Nelson programs involved the following activities:

- a review of the legislative history;
- a review of the budget requests and funding history for Bankhead-Jones and Morrill-Nelson;
- a mail survey of land-grant institutions;
- telephone interviews with senior officials at 33 randomly selected land-grant institutions; and
- the collection of ancillary information from Federal agencies and nongovernmental sources.

To ascertain the original intent of Bankhead-Jones and Morrill-Nelson funding, a legislative review was conducted. This body of law extends back over a century to the first Morrill Act in 1862 and includes as well the Morrill Act of 1890, the Nelson Amendment of 1907, the Bankhead-Jones Act of 1935 and its 1960 Amendment.

Documentation for the Federal perspectives on the Bankhead-Jones and Morrill-Nelson programs has been drawn from budget submissions of the administration, published testimony at congressional budget hearings, House and Senate appropriation committee reports, and House-Senate conference reports.

To collect information on the amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions in 1978-79, how these funds were used, and relevant enrollment information, the National Association of State Universities and Land-Grant Colleges conducted a mail survey, with the cooperation of the U.S. Department of Agriculture. Questionnaires were mailed to the chief executive officers of all 71 land-grant institutions on December 5, 1979, with a request for speedy completion. In all, 63 institutions responded, 60 in time for computer processing of the responses. Survey results appearing in this review depict only the situation at responding institutions, not all land-grant institutions, since disproportionate numbers of the nonparticipants are comparatively small and geographically concentrated in the northeast and north central regions.

To gather in-depth information regarding administration of Bankhead-Jones funds at the campus level, their uses (past and present), and impact if funds were curtailed, a telephone survey was conducted by the U.S. Department of Agriculture during December 1979 with senior officials (presidents, deans of agriculture, administrators of resident instruction, and others of similar rank) at 33 land-grant institutions. Institutions were randomly selected within four strata, determined by size and racial composition, using a table of random numbers. Of the 33 institutions initially selected for review, 27 were able to cooperate on short notice. The six replacements were also selected by random numbers.

Organization of Report

This report is divided into two parts. Chapter I gives an overview of the review, its auspices and conduct, and sketches the report's organization.

The second chapter sets forth the findings of this review. The legislative, funding, and administrative histories of Bankhead-Jones and Morrill-Nelson are recounted. Funding policy over the past two decades is examined. Drawing on data supplied by institutions in telephone and mail surveys, Chapter II also describes which activities and fields of study have received Federal support. The distribution of Bankhead-Jones and Morrill-Nelson funds is reported in several ways -- by State, institution, size of enrollment, region, and land-grant status, as well as in relation to total instructional expenditures at land-grant institutions. The chapter concludes by describing the perspectives of officials at land-grant institutions on Bankhead-Jones and Morrill-Nelson funds.

The body of the report highlights the purposes, procedures, and findings of the review, with details being relegated to 19 appendixes. Appendixes A through E present detailed information regarding the Federal legislative and administrative actions reviewed for this report. Communications with nongovernmental representatives took the form of meetings and correspondence. These are summarized in Appendixes F through I. The mail survey is depicted in Appendixes J through M, the telephone survey in Appendixes N through Q. The last two appendixes, R and S, present ancillary information on the size of the higher education establishment, where agriculture and engineering are concerned, and the contribution of land-grant institutions thereto.

II. REVIEW

A. Federal Legislation, Funding, and Administration

Legislative History

Introduction. This section highlights the legislative history of the Bankhead-Jones and Morrill-Nelson programs, giving special attention to their original intent. The legislative history is summarized by Chart 1. Appendix C reviews the legislative history in greater detail. Congressional concern over the original intent of this body of legislation is expressed in Appendix A. The principal laws discussed below and in Appendix C are presented in their entirety in Appendix B, along with significant Federal rulings and opinions. Appendix E supplies bibliographical notes.

Scope of Intent and Review. The Bankhead-Jones Act of 1935 authorizes Congress to make annual appropriations to all States for their land-grant institutions to use for instruction in agriculture, mechanical arts, and related subjects (which has been defined to mean English, mathematics, the natural, physical, and economic sciences, and special preparation of teachers in agriculture and mechanical arts). The terms of the Act center on funding matters, subsuming intent from previous legislation regarding instruction at land-grant institutions. Accordingly, this report reviews the Morrill Act of 1862 (12 Stat. 503); the Morrill Act of 1890 (25 Stat. 417); and the Nelson Amendment of 1907 (34 Stat. 1281)--all closely linked to the history and intent of Title II, Section 22 of the Bankhead-Jones Act of 1935 (49 Stat. 439) and the 1960 Amendment to Section 22 (Public Law 86-658). More recent legislative action under review includes Title XIV of the Food and Agriculture Act of 1977 (91 Stat. 981), and the Department of Education Organization Act (P.L. 96-459).

Morrill Act of 1862. This Act established the land-grant college system by providing that

the interest (from monies derived from the sale of land)...shall be inviolably appropriated...to the endowment, support, and maintenance of at least one college (in a State) where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.

Under the Act, funds may not be used to purchase land, nor may they be applied to the purchase, erection, repair, or preservation of buildings.

Chart 1

Chart of Legislative History

| <u>Year</u> | <u>Statute</u> | <u>Level of Support from Federal Govt. to States</u> | <u>Purpose of the Statute</u> |
|-------------|---|--|--|
| 1862 | First Morrill Act | 30,000 acres of public land for each member of Congress | For the support of at least one college where the main object is instruction of subject areas related to agriculture and the mechanic arts, in such a manner as to promote a liberal and practical education |
| 1890 | Second Morrill Act | Annual appropriation of \$25,000 | "For instruction in agriculture, the mechanic arts, English language, and the various branches of mathematical, physical, natural and economic science, with special reference to their applications in the industries of life" |
| 1907 | Nelson Amendment | Double annual appropriation to \$50,000 | Same as Second Morrill Act with the additional specification that a portion of the fund could be used for "providing courses for the special preparation of instructors for teaching the elements of agriculture and mechanic arts." |
| 1935 | Title II, Section 22 of the Bankhead-Jones Act | Annual appropriation of \$980,000; and "for the fiscal year following the first fiscal year for which an appropriation is made in pursuance of (the \$980,000)...\$500,000, and for each of the two fiscal years thereafter \$500,000 more than the amount authorized to be appropriated for the preceding fiscal year and for each fiscal year thereafter \$1,500,000." | Same as Morrill Act of 1862 as "amended and supplemented" |
| 1960 | Amendment to Title II, Section 22 of the Bankhead-Jones Act | Annual appropriation of \$7,650,000 which is distributed equally among the States and Puerto Rico; \$4,300,000 which is allotted based on the proportion of State (Puerto Rico) population to total U.S. and Puerto Rico population | Same as Morrill Act of 1862 as "amended and supplemented" |
| 1977 | Food and Agriculture Act | --- | Transfer of the administration of the Bankhead-Jones Act from Office of Education to Department of Agriculture |

Morrill Act of 1890. "The object of this bill is to place the system of colleges for the benefit of agriculture and the mechanic arts, established under the law of July 2, 1862, upon a basis of assured support for all time."

The 1890 Act supplemented that of 1862 in three important respects:

- (1) In addition to the fixed fund which had been invested, it provided for permanent annual appropriations of \$25,000 per State--described as a "further endowment."
- (2) It narrowed slightly the purposes for which the grant could be used; instead of "general support and maintenance" of the colleges, the grants were to be applied only to instruction in agriculture, the mechanic arts, the English language and the various branches of mathematical, physical, natural and economic science, with special reference to their applications in the industries of life, and to the facilities for such instruction.

The term "facilities" refers to instructional equipment.

- (3) It barred grants to institutions whose admissions were based on racial discrimination, but allowed States to establish separate land-grant institutions for black and white students, provided there was a "just and equitable division of the fund." Authority for determining a "just and equitable division" was vested initially in the Secretary of the Interior, along with other oversight provisions of the act. That authority now resides with the Secretary of Education.

1907 (Nelson) Amendment to the Morrill Act of 1890. The Nelson Amendment of 1907 did essentially two things:

- (1) It doubled the amount of Federal money authorized for each State (to \$50,000 annually);
- (2) It specified that a portion of the money could also be used for "providing courses for the special preparation of instructors for teaching the elements of agriculture and mechanic arts."

Bankhead-Jones Act of 1935 (Title II, Section 22). The general descriptive language of the Act with respect to Section 22 says the purpose of the Bill is the "more complete endowment and support of the land-grant colleges...." The Act "authorizes to be appropriated" two amounts: The first to be paid to the States and Puerto Rico in equal shares, and the second in proportion to their total population.

1960 Amendment to Title II, Section 22, of the Bankhead-Jones Act of 1935. The House-Senate Committee report states that the purpose of this bill is "to restore the level of support by the Federal government for teaching in the national system of land-grant colleges and universities to the level authorized by Congress in 1935," by taking into account the inflation (100 percent) and population increases (40 percent) which had occurred since the 1935 Act.

Title XIV of the Food and Agriculture Act of 1977. This Act authorized transfer of the administration of Section 22 of the Bankhead-Jones Act from the U.S. Office of Education to the U.S. Department of Agriculture.

The Department of Education Organization Act (1979). The Department of Education Organization Act transferred the authority to administer the second Morrill Act to the Secretary of Education. While no explicit mention is made of the first Morrill Act, it appears that the Secretary of Education holds that authority as well. This means that the Secretary of Education currently holds oversight authority with respect to compliance by land-grant colleges with the statutory terms and conditions governing the Bankhead-Jones and Morrill-Nelson Acts.

Summary. The enabling legislation for both the Bankhead-Jones and Morrill-Nelson programs authorizes use of the funds for instruction in a number of fields of study. Decisionmaking about the actual use of the funds is left to the institution "in such a manner as the legislatures of the States may respectively prescribe...." Where more than one land-grant institution exists in a State, its legislature determines the distribution of Bankhead-Jones and Morrill-Nelson funds, subject to review by the Secretary of Education.

Designation of Land-Grant Institutions

Land-grant institutions are colleges or universities designated by a State legislature to receive the benefits of the Morrill Act of 1862, the Morrill Act of 1890, and subsequent legislation, including the Nelson Amendment of 1907 and the Bankhead-Jones Act of 1935, as amended. Those institutions designated as land-grant institutions under the Morrill Act of 1862 are known as "1862 institutions"; those designated under the Morrill Act of 1890 are known as "1890 institutions." Appendix K identifies land-grant institutions and their land-grant status (1862/1890) by State. Tuskegee Institute does not appear in this listing, though it is frequently mentioned with 1890 institutions, since it is not designated as a land-grant institution by the State of Alabama and hence does not receive Bankhead-Jones and Morrill-Nelson funds.

Land-grant institutions now exist in all 50 States. In addition, land-grant institutions were designated in Puerto Rico in 1908; in the District of Columbia in 1969; and in both Guam and the Virgin Islands in 1973. Legislation is now pending on the designation of a land-grant institution in American Samoa (Appendix C). Currently there are 71 land-grant institutions. Sixteen States have 1862 and 1890 institutions. One State, Massachusetts, has two 1862 institutions.

Funding Level

Current Allocations Under Bankhead-Jones and Morrill-Nelson. The Bankhead-Jones Act currently authorizes payment of up to \$12,460,000 annually. Of this, \$8,100,000 is allocated among all States, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands in uniform grants of \$150,000 each. The balance of the authorization (up to \$4,360,000) is distributed among all States and eligible jurisdictions (hereafter "States") in proportion to population. Specifically, each State receives a variable grant calculated in terms of the proportion which the total population of that State bears to the total population of all States, as determined by the last preceding decennial census. Funds must be appropriated annually.

In 1980, with appropriations under Bankhead-Jones at \$11,500,000, support varied from \$479,252 for California to \$151,031 for the Virgin Islands, as Table 1 shows. Also presented in Table 1 is the size of the variable grant received by each State under Bankhead-Jones. In the right-hand column, that amount is expressed as a percentage of the total amount of variable grants distributed. California, for example, received 9.7 percent of the variable funds distributed to all States under Bankhead-Jones in 1980.

Juxtaposition of the data in Table 1 with 1970 decennial census data reveals that the States did receive variable sums in 1979 corresponding to the proportion which the total State population bears to the total population of all States.^{3/} In other words, the funds were distributed in accordance with the statutes.

The amount of support received by specific land-grant institutions in 1979 appears in Table 2. Grants varied from \$479,252 for the University of California (going to campuses located in Berkeley, Davis, Riverside, and Santa Barbara) to \$14,199 for Lincoln University, Missouri.

The Morrill-Nelson Act provided for a permanent appropriation of \$2,700,000 in 1979, with each of the eligible jurisdictions receiving a sum of \$50,000. The distribution of Morrill-Nelson funds by institution is shown in Table 2.

^{3/} The total population of States and eligible jurisdictions appears in The World Almanac and Book of Facts, 1980, Newspaper Enterprise Association, Inc., New York: 1979, pp. 193 and 246.

Table 1

Total and variable grant payments under the Bankhead-Jones Act by State: fiscal year 1980

| State | Variable grant 1/ | | | |
|----------------------|-------------------|-------|-----------|-------------------|
| | Total | | | Percentage |
| | Bankhead- | Jones | Amount | of total |
| | payment | | | variable grant |
| Total | \$11,500,000 | | 3,400,000 | 100.0 |
| Alabama | 206,833 | | 56,833 | 1.7 |
| Alaska | 154,986 | | 4,986 | .1 |
| Arizona | 179,248 | | 29,248 | .9 |
| Arkansas | 181,737 | | 31,737 | .9 |
| California | 479,252 | | 329,252 | 9.7 |
| Colorado | 186,423 | | 36,423 | 1.1 |
| Connecticut | 200,036 | | 50,036 | 1.5 |
| Delaware | 159,044 | | 9,044 | .3 |
| District of Columbia | 162,483 | | 12,483 | .4 |
| Florida | 262,035 | | 112,035 | 3.3 |
| Georgia | 225,734 | | 75,734 | 2.2 |
| Guam | 151,403 | | 1,403 | (*) |
| Hawaii | 162,705 | | 12,705 | .4 |
| Idaho | 161,766 | | 11,766 | .3 |
| Illinois | 333,395 | | 183,395 | 5.4 |
| Indiana | 235,702 | | 85,702 | 2.5 |
| Iowa | 196,617 | | 46,617 | 1.4 |
| Kansas | 187,113 | | 37,113 | 1.1 |
| Kentucky | 203,123 | | 53,123 | 1.6 |
| Louisiana | 210,117 | | 60,117 | 1.8 |
| Maine | 166,397 | | 16,397 | .5 |
| Maryland | 214,725 | | 64,725 | 1.9 |
| Massachusetts | 243,879 | | 93,879 | 2.8 |
| Michigan | 296,450 | | 146,450 | 4.3 |
| Minnesota | 212,789 | | 62,789 | 1.8 |
| Mississippi | 186,582 | | 36,582 | 1.1 |
| Missouri | 227,183 | | 77,183 | 2.3 |
| Montana | 161,459 | | 11,459 | .3 |
| Nebraska | 174,484 | | 24,484 | .7 |
| Nevada | 158,065 | | 8,065 | .2 |
| New Hampshire | 162,173 | | 12,173 | .4 |
| New Jersey | 268,284 | | 118,284 | 3.5 |
| New Mexico | 166,765 | | 16,765 | .5 |
| New York | 450,171 | | 300,171 | 8.8 |
| North Carolina | 233,861 | | 83,861 | 2.5 |
| North Dakota | 160,194 | | 10,194 | .3 |
| Ohio | 325,772 | | 175,772 | 5.2 |
| Oklahoma | 192,231 | | 42,231 | 1.2 |
| Oregon | 184,511 | | 34,511 | 1.0 |
| Pennsylvania | 344,614 | | 194,614 | 5.7 |
| Puerto Rico | 194,752 | | 44,752 | 1.3 |
| Rhode Island | 165,672 | | 15,672 | .5 |
| South Carolina | 192,747 | | 42,747 | 1.3 |
| South Dakota | 160,994 | | 10,994 | .3 |
| Tennessee | 214,754 | | 64,754 | 1.9 |
| Texas | 334,760 | | 184,760 | 5.4 |
| Utah | 167,479 | | 17,479 | .3 |
| Vermont | 157,339 | | 7,339 | .2 |
| Virginia | 226,706 | | 76,706 | 2.3 |
| Virgin Islands | 151,031 | | 1,031 | (*) |
| Washington | 206,256 | | 56,256 | 1.7 |
| West Virginia | 178,782 | | 28,782 | .8 |
| Wisconsin | 222,902 | | 72,902 | 2.1 |
| Wyoming | 155,485 | | 5,485 | .2 |

* Indicates less than one half of 1 percent (0.005).

1/ Each State (i.e. eligible jurisdiction) receives a uniform grant of \$150,000 and a variable grant reflecting the proportion which the total population of that State bears to the total population of all States, as determined by the last preceding decennial census.

SOURCE: 1981 Budget, Explanatory Notes, Science and Education Administration, U.S. Department of Agriculture, p. 253.

Table 2

Amount of Bankhead-Jones and Morrill-Nelson Funds reported by land-grant institutions: fiscal year 1979

| State | Institution | Bankhead-Jones | Morrill-Nelson | Total |
|--------|---|----------------|----------------|------------|
| : | : | : | : | : |
| : | Total 1/ | 11,500,312 | 2,699,779 | 14,200,091 |
| : | | : | : | : |
| Ala. | :Alabama A&M University | 70,604 | 15,902 | 86,506 |
| | :Auburn University | 136,229 | 34,098 | 170,327 |
| | : | | | |
| Alaska | :University of Alaska | 154,986 | 50,000 | 204,986 |
| | : | | | |
| Ariz. | :University of Arizona | 179,248 | 50,000 | 229,248 |
| | : | | | |
| Ark. | :University of Arkansas-Fayetteville | 132,172 | 36,364 | 168,536 |
| | :University of Arkansas-Pine Bluff | 49,565 | 13,636 | 63,201 |
| | : | | | |
| Calif. | :University of California | 479,253 | 50,000 | 529,253 |
| | : | | | |
| Colo. | :Colorado State University | 186,423 | 50,000 | 236,423 |
| | : | | | |
| Conn. | :University of Connecticut | 200,036 | 50,000 | 250,036 |
| | : | | | |
| Del. | :Delaware State University | 31,809 | 10,000 | 41,809 |
| | :University of Delaware | 127,235 | 40,000 | 167,235 |
| | : | | | |
| D.C. | :University of the District of Columbia | 162,483 | 50,000 | 212,483 |
| | : | | | |
| Fla. | :University of Florida | 184,149 | 25,000 | 209,149 |
| | :Florida A&M University | 77,886 | 25,000 | 102,886 |
| | : | | | |
| Ga. | :Fort Valley State | 59,120 | 13,095 | 72,215 |
| | :University of Georgia | 166,614 | 36,905 | 203,519 |
| | : | | | |
| Guam | :University of Guam | 151,403 | 50,000 | 201,403 |
| | : | | | |
| Hawaii | :University of Hawaii | 162,705 | 50,000 | 212,705 |
| | : | | | |
| Idaho | :University of Idaho | 161,766 | 50,000 | 211,766 |
| | : | | | |
| Ill. | :University of Illinois | 333,395 | 50,000 | 383,395 |
| | : | | | |
| Ind. | :Purdue University | 235,702 | 50,000 | 285,702 |
| | : | | | |
| Iowa | :Iowa State University | 196,617 | 50,000 | 246,617 |
| | : | | | |
| Kans. | :Kansas State University | 187,113 | 50,000 | 237,113 |
| | : | | | |
| Ky. | :Kentucky State University | 29,453 | 7,250 | 36,703 |
| | :University of Kentucky | 173,760 | 42,750 | 216,510 |
| | : | | | |
| La. | :Louisiana State University | 147,292 | 35,050 | 182,342 |
| | :Southern University and A&M College | 62,825 | 14,950 | 77,775 |
| | : | | | |
| Maine | :University of Maine at Orono | 166,397 | 50,000 | 216,397 |
| | : | | | |
| Md. | :University of Maryland-College Park | 188,958 | 44,000 | 232,958 |
| | :University of Maryland-Eastern Shore | 25,767 | 6,000 | 31,767 |
| | : | | | |
| Mass. | :Massachusetts Institute of Technology | 16,666 | 3,650 | 20,316 |
| | :University of Massachusetts | 227,213 | 46,350 | 273,563 |
| | : | | | |
| Mich. | :Michigan State University | 296,450 | 50,000 | 346,450 |
| | : | | | |
| Minn. | :University of Minnesota | 212,789 | 50,000 | 262,789 |
| | : | | | |
| Miss. | :Alcorn State University | 81,899 | 18,804 | 100,703 |
| | :Mississippi State University | 104,683 | 31,196 | 135,879 |
| | : | | | |

Table 2

Amount of Bankhead-Jones and Morrill-Nelson funds reported by land-grant institutions: fiscal year 1979--Continued

| State | Institution | : Bankhead- Jones | : Morrill- Nelson | Total |
|--------|---------------------------------------|----------------------|----------------------|---------|
| : | : | : | : | |
| Mo. | : Lincoln University | : 14,199 | : 3,125 | 17,324 |
| | : University of Missouri | : 212,984 | : 46,875 | 259,859 |
| | : | : | : | |
| Mont. | : Montana State University | : 161,459 | : 50,000 | 211,459 |
| | : | : | : | |
| Nebr. | : University of Nebraska | : 174,484 | : 50,000 | 224,484 |
| | : | : | : | |
| Nev. | : University of Nevada | : 158,065 | : 50,000 | 208,065 |
| | : | : | : | |
| N.H. | : University of New Hampshire | : 162,173 | : 50,000 | 212,173 |
| | : | : | : | |
| N.J. | : Rutgers State University | : 268,284 | : 50,000 | 318,284 |
| | : | : | : | |
| N.Mex. | : New Mexico State | : 166,765 | : 50,000 | 216,765 |
| | : | : | : | |
| N.Y. | : Cornell University | : 450,171 | : 50,000 | 500,171 |
| | : | : | : | |
| N.C. | : North Carolina A&T State University | : 77,395 | : 16,279 | 93,674 |
| | : North Carolina State University | : 156,687 | : 33,500 | 190,187 |
| | : | : | : | |
| N.Dak. | : North Dakota State University | : 160,194 | : 50,000 | 210,194 |
| | : | : | : | |
| Ohio | : Ohio State University | : 325,772 | : 50,000 | 375,772 |
| | : | : | : | |
| Okla. | : Langston University | : 19,223 | : 5,000 | 24,223 |
| | : Oklahoma State University | : 173,008 | : 45,000 | 218,008 |
| | : | : | : | |
| Oreg. | : Oregon State University | : 184,511 | : 50,000 | 234,511 |
| | : | : | : | |
| Pa. | : Pennsylvania State University | : 344,614 | : 50,000 | 394,614 |
| | : | : | : | |
| P.R. | : University of Puerto Rico | : 194,752 | : 50,000 | 244,752 |
| | : | : | : | |
| R.I. | : University of Rhode Island | : 165,672 | : 50,000 | 215,672 |
| | : | : | : | |
| S.C. | : Clemson University | : 96,374 | : 25,000 | 121,374 |
| | : South Carolina State College | : 96,374 | : 25,000 | 121,374 |
| | : | : | : | |
| S.Dak. | : South Dakota State University | : 160,994 | : 50,000 | 210,994 |
| | : | : | : | |
| Tenn. | : Tennessee State University | : 38,849 | : 9,045 | 47,894 |
| | : University of Tennessee | : 175,905 | : 40,955 | 216,860 |
| | : | : | : | |
| Tex. | : Prairie View Agricultural and | : | : | |
| | : Mechanical University | : 83,690 | : 12,500 | 96,190 |
| | : Texas A&M University | : 251,070 | : 37,500 | 288,570 |
| | : | : | : | |
| Utah | : Utah State University | : 167,479 | : 50,000 | 217,479 |
| | : | : | : | |
| Vt. | : University of Vermont | : 157,339 | : 50,000 | 207,339 |
| | : | : | : | |
| Va. | : Virginia Polytechnic Institution | : 151,137 | : 33,333 | 184,470 |
| | : Virginia State University | : 75,568 | : 16,667 | 92,235 |
| | : | : | : | |
| V.I. | : College of the Virgin Islands | : 151,031 | : 50,000 | 201,031 |
| | : | : | : | |
| Wash. | : Washington State University | : 206,256 | : 50,000 | 256,256 |
| | : | : | : | |
| W.Va. | : West Virginia University | : 178,782 | : 50,000 | 228,782 |
| | : | : | : | |
| Wis. | : University of Wisconsin-Madison | : 222,902 | : 50,000 | 272,902 |
| | : | : | : | |
| Wyo. | : University of Wyoming | : 155,485 | : 50,000 | 205,485 |
| | : | : | : | |
| | : | : | : | |

1/ The total amount reported by institutions was slightly greater than that appropriated for fiscal year 1979. In that year appropriations for Bankhead-Jones were \$11,500,000; Morrill-Nelson, \$2,700,000; for a combined total of \$14,200,000. This represents a reporting error of less than 1/100 of one percent and does not significantly affect the study's findings.

SOURCE: 1979 mail survey conducted by the National Association of State Universities and Land-Grant Colleges in cooperation with the U.S. Department of Agriculture.

Funding History. The history of appropriations for the Bankhead-Jones and Morrill-Nelson programs appears in the tabulation below:

| <u>Annual appropriations for Bankhead-Jones</u> | <u>Annual appropriations for Morrill-Nelson</u> |
|---|---|
| 1936 \$ 980,000 | 1906-1968 \$ 2,550,000 |
| 1937 1,480,000 | 1969-1972 2,600,000 |
| 1938 1,980,000 | 1973-1980 2,700,000 |
| 1939-53 2,480,000 | |
| 1954-61 2,502,000 | |
| 1962 8,194,000 | |
| 1963-69 11,950,000 | |
| 1970 12,120,000 | |
| 1971 10,080,000 | |
| 1972-73 10,000,000 | |
| 1974-76 9,500,000 | |
| 1977-80 11,500,000 | |

Funding increased under both programs as new jurisdictions became eligible. The amendment to the Bankhead-Jones Act in 1960 provided the last major change in funding level. The largest Bankhead-Jones appropriation occurred in 1970.

Inflation and Population Increases. This section describes the computation of the adjustment to the 1935 authorization level made by the 1960 Amendment to the Bankhead-Jones Act. The adjustment was predicated on two factors -- inflation and population increase. In addition, identical computational procedures are followed to restate the 1960 level of support into 1980 terms, taking into account the inflation and population increases since the 1960 Amendment.

The purpose of the 1960 Amendment, as noted in the legislative review, was as follows:

To restore the level of support by the Federal Government of teaching in the national system of land-grant colleges and universities to the level authorized by Congress in 1935. (Senate Report 1596 to accompany S 3450, June 16, 1960 p. 1)

The House-Senate committee report explicated the basis of the increased authorization as follows:

Since 1935, the population of the United States, upon which part of the appointment of land-grant funds is based, has increased 40 percent. Also, since 1935 we have had an inflation of 100 percent. The present total of annual appropriations to land-grant institutions for teaching purposes from the Morrill Act of 1890, as amended, and the Bankhead-Jones Act of 1935 is \$5,051,500. (Ibid., p. 3)

Note that all land-grant instructional funds -- both Bankhead-Jones and Morrill-Nelson -- were used as a basis for computations.

The published proceedings did not report the exact formula for determining the adjustment. However, it appears to be the mathematical product of the 1935 authorization level and the percent increases in the two adjustment factors. 4/ To begin with, the 1960 Amendment raised the total authorization for land-grant teaching funds from \$5,051,500 to \$14,500,000. The total increase of \$9,448,500 was applied only to Bankhead-Jones, leaving the permanent appropriation under Morrill-Nelson unchanged. To allocate the increase among the uniform and variable parts of Bankhead-Jones, the following steps apparently were taken:

- (1) The population increase accounted for 40/140 of the total adjustment being made (100% + 40%). Therefore, 40/140 of the \$9,448,500 was allocated to the population-based variable grants;
- (2) The remainder, 100/140, representing inflation, was allocated to the uniform grant. 5/

These computations result in the variable and uniform sums shown in Table 3.

4/ That formula is as follows:

$$\$5,051,500 \times 140 \times 200$$

with 140 and 200 representing percent increases of 40 and 100 respectively. The product, \$14,144,200, is slightly below the new (1960) authorization level (\$14,500,000). Presumably this discrepancy stems from the use of less exact statistics than were used at the time. Also Congress may have rounded upward to the nearest half-million since the amendment would not go into effect until fiscal year 1962.

5/ These calculations are slightly off mark, again probably due to rounding error. There is a 1 percent difference between the actual proportion of the increase going to the variable grant (29.6 percent) and the amount predicted by the formula (28.6 percent).

Table 3

Authorization level for Bankhead-Jones and Morrill-Nelson before and after 1960 Amendment.

| Program | 1935 authorization level | 1960 authorization level | Change |
|----------------|--------------------------------|--------------------------------|-------------|
| Total | \$5,051,500 | \$14,500,000 | \$9,448,500 |
| Morrill-Nelson | 2,550,000 | 2,550,000 | 0 |
| Bankhead-Jones | | | |
| Uniform | 1,000,000 | 7,650,000 | 6,650,000 |
| Variable | 1,501,500 | 4,300,000 | 2,798,500 |

Following the 1960 computational procedures outlined above, \$45,851,935 would be required in 1980 to match the level authorized by Congress in 1960. The population increased during this period by 23.4 percent (from 180,007,000 to an estimated 222,159,000). ^{6/} And between 1960 and 1980 the Consumer Price Index rose from 88.7 to an estimated 217.4, an increase of 145.1 percent. ^{7/} On the assumption that the Morrill-Nelson authority is held constant, as it was in 1960, the uniform grant under Bankhead-Jones would increase to \$34.5 million and the variable grant to \$8.6 million. The computations yield the figures in Table 4. Expressed in other terms, the minimum amount per State or eligible jurisdiction would rise from \$150 thousand to \$640 thousand.

^{6/} U.S. Bureau of the Census.

^{7/} Economic Report of the President transmitted to Congress in January 1980, Table B-3. In the absence of any information as to what inflation adjustor was used for the 1960 Amendment, this study uses the Consumer Price Index because it increased by approximately 100 percent from 1935 to the time the 1960 Amendment was drafted, closely matching the statistic used by Congress. There may be more appropriate inflation adjustors. One such alternative would be an index of the actual increases in the cost of instructional equipment and faculty salaries at each institution receiving funds, weighted by the proportion of Bankhead-Jones and Morrill-Nelson funds going to each type of expenditure and by the size of the grant which each institution received.

Table 4

Support level for Bankhead-Jones and Morrill-Nelson,
restated in terms of inflation and population increase
since 1960 Amendment

| Program | 1960 authorization level (adjusted)* | Comparable 1980 support level** | Net change |
|----------------|---|--|---------------|
| Total | \$15,160,000 | \$45,851,935 | \$30,691,935 |
| Morrill-Nelson | 2,700,000 | 2,700,000 | 0 |
| Bankhead-Jones | | | |
| Uniform | 8,100,000 | 34,529,672 | 26,429,672 |
| Variable | 4,360,000 | 8,622,263 | 4,262,263 |

* Adjusted to include jurisdictions which became eligible for Bankhead-Jones and Morrill-Nelson funds since 1960.

** Formula for computing inflation and population adjustments appears in footnote on page 13.

Administration

From the passage of the Morrill Act in 1862 to July 1, 1939, Federal funds for instruction in the land-grant colleges and universities were administered by the Department of the Interior.

From July 1, 1939 to April 11, 1953, these funds were administered through the Federal Security Agency. Under provisions of the act approved April 1, 1953 (67 Stat., 5 U.S.C. 623), known as the Reorganization Plan I of 1953, the Federal Security Agency was abolished and the Department of Health, Education, and Welfare was created. All functions of the Federal Security Administrator were transferred to the Secretary of Health, Education, and Welfare, and all components of the Agency to the new department. Hence, the legal authority for the administration of the Morrill Act of 1862 and its several amendments and supplements appropriating funds for instruction in the land-grant colleges rested with the Secretary of Health, Education, and Welfare. 8/

From April 11, 1953 to January 31, 1978, Bankhead-Jones funds were administered by the Department of Health, Education, and Welfare. Thereafter, authority has been shared by two agencies. Administrative

8/ Taken from Henry S. Brunner, Land-Grant Colleges and Universities: 1862-1962, p. 54.

responsibility for Bankhead-Jones has been vested in the Secretary of Agriculture, under provisions of Title XIV, the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3101). However, with respect to compliance by land-grant institutions with the statutory terms and conditions imposed by the first and second Morrill Acts, as amended (which includes the 1907 Nelson Amendment and the Bankhead-Jones Act of 1935, as amended), oversight authority remained at the Department of Health, Education, and Welfare until the passage of the Department of Education Organization Act (P.L. 96-459). As of May 4, 1980, oversight authority became vested in the Secretary of Education. At the same time, both administrative and oversight authority over the Morrill-Nelson program were transferred from the Department of Health, Education, and Welfare to the Department of Education. 9/

Until very recently, land-grant institutions made annual reports to the Office of Education, describing the condition of the original land-grant endowment and the income derived therefrom during the year. Included in this report is the receipt of Bankhead-Jones and Morrill-Nelson monies and their expenditure for either salaries or instructional equipment by field of instruction. The treasurer and president of an institution certify in the report that Federal Funds have been used in accordance with the purpose of the appropriations. The report is made on the form appearing at the end of Appendix M.

Funding Policy

In the past decade the administration and Congress have frequently disagreed about whether to continue funding these programs. Since 1971, the executive branch has requested no Bankhead-Jones appropriation in

9/ During the 1980 budget hearings, a Department of Agriculture (USDA) spokesman reported consensus with HEW and USDA on introducing legislation to transfer the administration of the Morrill-Nelson program to the Department of Agriculture. This reportedly would require an amendment to the basic legislation, the Second Morrill Act. The spokesman went on to say:

Based on this consensus, action was begun to effect this transfer. However, when funding for the Bankhead-Jones authorization was not requested, it was judged that it would be inappropriate to continue with action which would result in the transfer of the Morrill-Nelson funds. (Senate Hearings, Agriculture, Rural Development, and Related Agencies Appropriations, Fiscal Year 1980, Part 3, p. 1308)

9 years and \$11.5 million in the remaining 2 years. Congress has appropriated funds for Bankhead-Jones from 1971 through 1980, but at less than full authorization. The amount of funds requested by the administration for these programs and the amount subsequently appropriated by Congress for the period 1960-1981 appear in Table 5.

Various justifications have been put forth for the continuation or discontinuation of the Bankhead-Jones and Morrill-Nelson programs during this period. Annual budget submissions and published testimony at Congressional appropriations hearings were examined for administration policy toward Bankhead-Jones and Morrill-Nelson. These same sources were examined for the policy positions of legislators, land-grant spokesmen, and representatives of educational associations. Factors advanced in support of funding since 1960 included the following:

- need of funds on the part of land-grant institutions;
- the Nation's reliance on land-grant institutions for a trained and educated workforce;
- extension of the benefits of higher education to a larger segment of the population;
- an example of effective Federal-State cooperation in financing higher education; and
- strengthening programs of training and research in food and agricultural sciences.

Factors against funding included:

- the funds represent a small source of revenue for land-grant institutions;
- inequity in funding a program that reaches only land-grant institutions;
- inability to target funds to institutions with special needs;
- availability of alternative funding through HEW's Strengthening Developing Institutions program;
- a shift in educational policy toward student assistance and away from institutional aid; and
- most of the funds do not directly support agricultural education.

Table 5.--Budget request to Congress and appropriation for Bankhead-Jones and Morrill-Nelson programs: fiscal years 1960-1981

| Fiscal year | Number of institutions: | Bankhead-Jones | Morrill-Nelson | | |
|-------------|-------------------------|----------------------------|--------------------------|----------------------------|-------------------------|
| | | Budget request to Congress | Appropriation | Budget request to Congress | Appropriation |
| 1960 | 51 | \$2,501,500 ^{a/} | \$2,501,500 | \$2,550,000 ^{b/} | \$2,550,000 |
| 1961 | 51 | 2,501,500 | 2,501,500 | 2,550,000 | 2,550,000 |
| 1962 | 51 | 8,194,000 ^{c/} | 8,194,000 | 2,550,000 | 2,550,000 |
| 1963 | 51 | 11,950,000 ^{d/} | 11,950,000 | 2,550,000 | 2,550,000 |
| 1964 | 51 | 11,950,000 | 11,950,000 | 2,550,000 | 2,550,000 |
| 1965 | 51 | 11,950,000 | 11,950,000 | 2,550,000 | 2,550,000 |
| 1966 | 51 | 11,950,000 | 11,950,000 | 2,550,000 | 2,550,000 |
| 1967 | 51 | 11,950,000 | 11,950,000 | 2,550,000 | 2,550,000 |
| 1968 | 51 | 11,950,000 | 11,950,000 | 2,550,000 | 2,550,000 |
| 1969 | 51 | 11,950,000 | 11,950,000 | 2,550,000 | 2,600,000 ^{e/} |
| 1970 | 52 | 12,120,000 ^{e/} | 12,120,000 | 2,600,000 | 2,600,000 |
| 1971 | 52 | 0 | 10,080,000 | 2,600,000 | 2,600,000 |
| 1972 | 52 | 0 | 10,000,000 | 2,600,000 | 2,600,000 |
| 1973 | 54 | 0 | 10,000,000 ^{f/} | 2,600,000 | 2,700,000 ^{g/} |
| 1974 | 54 | 0 | 9,500,000 | 2,700,000 | 2,700,000 |
| 1975 | 54 | 0 | 9,500,000 ^{f/} | 2,700,000 ^{h/} | 2,700,000 |
| 1976 | 54 | 0 | 9,500,000 ^{f/} | 2,700,000 ^{h/} | 2,700,000 |
| 1977 | 54 | 0 | 11,500,000 | 0 | 2,700,000 |
| 1978 | 54 | 11,500,000 ^{h/} | 11,500,000 ^{i/} | 2,700,000 | 2,700,000 |
| 1979 | 54 | 11,500,000 | 11,500,000 | 2,700,000 | 2,700,000 |
| 1980 | 54 | 0 | 11,500,000 | 2,700,000 | 2,700,000 |
| 1981 | 54 | 0 ^{j/} | k/ | 2,700,000 | k/ |

Explanatory Notes to Table 5

a/ The annual appropriation authorized by the Bankhead-Jones Act, approved June 30, 1935, and amended June 30, 1952, was \$2,501,500. Each State and Hawaii participated in it. The sum of \$1,000,000 was divided equally among the 50 jurisdictions, \$20,000 going to each. The sum of \$1,501,500 was divided among the 50 jurisdictions in the proportion which the total population of each bore to the total population of all the 50 jurisdictions. The Commonwealth of Puerto Rico did not share Bankhead-Jones funds at this time.

b/ By the Second Morrill Act, approved August 30, 1890, the Congress initiated a permanent appropriation for the further support of the land-grant colleges and universities. Through the Nelson Amendment to the Act making appropriations for the Department of Agriculture for the fiscal year ending June 30, 1908, approved March 4, 1907, this appropriation was increased. In 1960 it amounted to \$2,550,000 each year. Each State and Puerto Rico received \$50,000 a year from it.

c/ Public Law 86-658 (86th Congress, S-3450, July 14, 1960) amended section 22 of the Act of June 29, 1935, as amended (U.S.C. 329) to provide for additional endowment and support of the land-grant colleges and universities. It authorized the appropriation of \$7,650,000 for each fiscal year be paid annually to the several States and Puerto Rico in equal shares. This authorization increased the uniform grants to each of the States under the Bankhead-Jones Act, as amended, from \$20,000 to \$150,000. In addition, Puerto Rico, which previously did not share in Bankhead-Jones funds, would also be authorized to receive \$150,000.

Public Law 86-658 also authorized the appropriation of \$4,300,000 for each fiscal year "to be paid annually to each of the States and Puerto Rico to the proportion which the total population of each State and Puerto Rico bears to the total population of all the States and Puerto Rico as determined by the last preceding decennial census." This authorization raised from \$1,501,500 to \$4,300,000 the amount divided among the 50 States and Puerto Rico in variable grants, with Puerto Rico not sharing in the first \$1,501,500.

The Office of Education requested the full authorization of \$11,950,000 in its budget submission to the Bureau of the Budget in 1962. The amount was reduced to \$8,194,000 for submission to Congress. Under this reduced funding plan, uniform grants to each State increased from \$20,000 to \$90,000. Puerto Rico, which did not previously receive Bankhead-Jones funds, also received \$90,000 raising the total uniform grants to the States from \$1,000,000 to \$4,590,000. Variable grants increased from \$1,501,000 to \$3,604,000 with Puerto Rico not sharing in the first \$1,501,500.

d/ The increase represented the second of two steps to raise these grants to the maximum amount authorized by the 1960 amendments to the Bankhead-Jones Act (Public Law 86-658). Uniform grants to each State and Puerto Rico increased from \$90,000 to \$150,000 raising the total uniform grants to the States and Puerto Rico from \$4,590,000 to \$7,650,000. Variable grants increased from \$3,604,000 to \$4,300,000 with Puerto Rico not sharing in the first \$1,501,500.

e/ The District of Columbia Federal City College (later known as the University of the District of Columbia) became a land-grant college in 1969. Its annual increment, under the Bankhead-Jones Act was \$170,000. Its permanent appropriation of \$50,000 under the Second Morrill Act was first paid in 1969.

f/ Revision of appropriations requested.

g/ The Education Amendments of 1972 provided that the College of the Virgin Islands and the University of Guam shall be considered land-grant colleges in fiscal year 1973. Supplemental legislation fixed the permanent annual appropriations under the Second Morrill Act at \$2,700,000, assuring an equal grant of \$50,000 to each State, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands.

h/ Included in revised budget. Original budget requested zero-level funding.

i/ The Bankhead-Jones program was transferred to the Department of Agriculture on January 31, 1978. Section 1417(c) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (P.L. 95-113) signed September 29, 1977, specifies that "Funds authorized in section 22 of the Act of June 29, 1935, (49 Stat. 439, as amended: 7 U.S.C. 329), are transferred to and shall be administered by the Secretary of Agriculture."

j/ Original budget request of \$11.5 million subsequently withdrawn.

k/ Congressional action pending.

SOURCES: Compiled from annual budget submissions of the Office of Education and U.S. Department of Agriculture.

Appendix D reports in greater detail the rationales used since 1960 in support of, and in opposition to, continued funding of Bankhead-Jones and Morrill-Nelson.

B. Uses of Bankhead-Jones and Morrill-Nelson Funds,
Fiscal Year 1979

Uses of Bankhead-Jones and Morrill-Nelson Funds by Areas of Instruction

This section reports how Bankhead-Jones and Morrill-Nelson funds were deployed by field of study, using two different classifications: the first is that used in the annual report of Bankhead-Jones and Morrill-Nelson funds to the Office of Education (OE); the second approach includes a broader array of fields of study traditionally allied with agriculture. Appendix J explains the measures and their rationale. Data came from the mail survey conducted by the National Association of State Universities and Land-Grant Colleges.

Results obtained using the definition of academic disciplines contained in annual OE reports on Bankhead-Jones and Morrill-Nelson are shown in Table 6. 10/ By this approach, agriculture received approximately one out of every five dollars of Federal support (19.8 percent) of the Bankhead-Jones funds in 1978-79, the remainder (80.2 percent) going to other fields. 11/

The first approach defines agriculture in a way that excludes many disciplines commonly found in colleges of agriculture (e.g., home economics). To estimate Federal support of these fields, the mail survey asked land-grant institutions to specify how Bankhead-Jones and Morrill-Nelson funds were distributed by academic discipline, using a second typology. By this method, agriculture and natural resources 12/ received 21.2 percent, with biological science, home economics, landscape architecture, and veterinary medicine also receiving Bankhead-Jones support, for a combined total of 37.0 percent for agriculture and allied fields. Table 7 shows how much Bankhead-Jones and Morrill-Nelson monies went to each of the agriculture-related disciplines.

10/ Analysis of OE program data for the past 20 years reveals that the distribution of funds has been nearly constant.

11/ A similar figure (82 percent), based on program data from an earlier year, was used by the Department of Agriculture in its budget explanatory notes to indicate how much Bankhead-Jones support went to non-agricultural fields. See the "1979-Present" section of Appendix D.

12/ Included in this definition are the following: general agriculture; agronomy; soils science; animal science; dairy science; poultry science; fish, game, and wildlife management; horticulture; ornamental horticulture; agricultural and farm management; agricultural economics; agricultural business; food science and technology; forestry; natural resources management; agriculture and forestry technologies; range management; and other specialities of the discipline.

Table 6.--Expenditure of Bankhead-Jones funds, by discipline, using alternative classifications: fiscal year, 1979

| Discipline, as defined by OE Form 1275 <u>1/</u> | Percent of Bankhead-Jones funds expended <u>2/</u> | Percent of Bankhead-Jones funds expended <u>2/</u> as defined by HEGIS typology <u>3/</u> | Percent of Bankhead-Jones funds expended <u>2/</u> |
|---|---|--|---|
| Total | 100.0 | : | Total |
| Agriculture | 19.8 | : | Agriculture-related disciplines <u>4/</u> |
| Mechanic Arts | 28.0 | : | Engineering |
| English language | 11.6 | : | Other related disci- plines <u>5/</u> |
| Mathematical sciences | 8.1 | : | |
| Natural and physical sciences | 24.2 | : | |
| Economic sciences | 6.3 | : | |
| Special preparation of teachers | 2.0 | : | |

1/ Academic disciplines are defined on the "Report of the Treasurer: Land-Grant and Supplementary Morrill Funds," Office of Education (OE) Form 1275, which land-grant institutions use to report annual expenditures for salaries and equipment.

2/ Altogether 51 institutions reported a total expenditure of \$8,810,000 in Bankhead-Jones funds by academic discipline.

3/ The definition of disciplines used by the Higher Education General Information Survey (HEGIS) appears in Robert A. Huff and Marjorie O. Chandler, A Taxonomy of Instructional Programs in Higher Education, National Center for Education Statistics, U.S. Department of Health, Education and Welfare, Washington, D.C.: 1970.

4/ A detailed breakdown by academic disciplines appears in Table 7.

5/ The residual category includes English, mathematical sciences, the natural and physical sciences other than the biological sciences, economic sciences, and special preparation of teachers.

SOURCE: 1979 mail survey conducted by the National Association of State Universities and Land-Grant Colleges in cooperation with the U.S. Department of Agriculture.

According to the data in Table 7, Morrill-Nelson funds were distributed in a fashion roughly comparable to Bankhead-Jones. The differences in Table 7 that are apparent arise partly as a measurement artifact, since a few institutions reported all Federal instructional support as either Morrill-Nelson or Bankhead-Jones funds. This is evident in Table 7 in the columns showing the number of reporting institutions: while a total of 56 institutions reported the amount of Federal instructional funds received, only 51 reported dollar sums for Bankhead-Jones and 52 for Morrill-Nelson. Officials at institutions which reported all instructional funds under one or the other program indicated that funds for both programs arrive in one check from the State treasury and that no distinction between programs is made at the campus level.

According to Table 7, approximately two-thirds of the Bankhead-Jones and Morrill-Nelson dollars went to instruction in engineering and agriculture-related disciplines in 1979. A residual category of disciplines received the remaining third of Federal support in 1979. These include English, mathematical sciences, the natural and physical sciences other than the biological sciences, economic sciences, and special preparation of teachers. 13/

Table 8 juxtaposes enrollment in different fields of study with the amount of support received from Bankhead-Jones and Morrill-Nelson. According to the mail survey data, agriculture and natural resources represented 6 percent of the total enrollment at land-grant institutions and received 22 percent of the support from Bankhead-Jones and Morrill-Nelson. The comparable statistics for agriculture and closely related disciplines were 16 and 38 percent; and for engineering, 11 and 27 percent. In contrast, enrollment in the other disciplines represented 73 percent of the total enrollment in land-grant institutions, while they obtained 35 percent of the Bankhead-Jones and Morrill-Nelson funds. 14/ In short, both agriculture and engineering received support in disproportion to the numbers of students enrolled in these fields as seems appropriate in light of the legislation.

Bankhead-Jones and Morrill-Nelson Funds Relative to Total Instructional Expenditures

Land-grant institutions reported in the mail survey instructional expenditures for 1978-79 of \$2.6 billion. About one out of every four dollars was spent for instruction in engineering and agriculture and

13/ It is relevant to note that baccalaureate candidates in engineering and agriculture, as in other fields, are required to take a fairly large proportion of their total instruction in subjects outside their chosen specialty.

14/ Appendix S reports additional information on the number pursuing studies in agriculture and engineering in all institutions of higher education, as well as the land-grant institutions' contribution to enrollment and degrees in these fields.

Table 7.--Expenditure of Bankhead-Jones and Morrill-Nelson funds, by discipline: fiscal year 1979

(Dollars in thousands)

| | Bankhead-Jones | Morrill-Nelson | Total |
|---|------------------------|---|--|
| Discipline <u>1/</u> | Number of institutions | Percent of total expenditures <u>2/</u> | Number of institutions <u>2/</u> : total expenditures <u>2/</u> : total expenditures <u>2/</u> |
| Total | 51 | 100.0 | 52 100.0 |
| Subtotal, agriculture-related disciplines | -- | 37.0 | 41.9 -- |
| Agriculture and natural resources | 34 | 21.2 | 36 26.5 41 22.3 |
| Biological science | 30 | 10.6 | 26 11.7 32 10.8 |
| Home economics | 22 | 3.6 | 20 3.2 25 3.5 |
| Veterinary medicine | 5 | 0.5 | 5 0.2 6 0.4 |
| Landscape architecture | 5 | 1.1 | 2 0.2 5 1.0 |
| Engineering | 34 | 28.1 | 30 22.0 37 26.9 |
| Other <u>3/</u> | 34 | 34.9 | 32 36.1 37 35.1 |

1/ Disciplines are defined in terms of conventional academic subdivisions of knowledge and training, as set forth in A Taxonomy of Instructional Programs in Higher Education by Robert A. Huff and Marjorie O. Chandler, National Center for Education Statistics, U.S. Department of Health, Education and Welfare, Washington, D.C.: 1970.

2/ Expenditures reported for Bankhead-Jones totaled \$8,810,000 and for Morrill-Nelson \$2,298,000 by academic discipline.

3/ The residual category includes English, mathematical sciences, the natural and physical sciences other than the biological sciences, economic sciences, and special preparation of teachers.

NOTE: Details may not add to total due to rounding.

SOURCE: 1979 mail survey conducted by the National Association of State Universities and Land-Grant Colleges in cooperation with the U.S. Department of Agriculture.

closely allied disciplines. As Table 8 shows, instructional expenditures for agriculture and natural resources represented 4.7 percent of total expenditures; agriculture and closely allied disciplines, 15.8 percent; engineering, 9.7 percent; and other disciplines, 74.5 percent. In other words, total instructional expenditures at land-grant institutions were roughly equivalent to enrollment in various disciplines, while Bankhead-Jones and Morrill-Nelson funds went to agriculture and engineering in disproportion to their enrollment.

Examining Bankhead-Jones and Morrill-Nelson support as a percentage of total instructional expenditures, Bankhead-Jones is 0.4 percent of all instructional expenditures for those land-grant institutions responding to the mail survey. Bankhead-Jones and Morrill-Nelson funds together accounted for 0.5 percent of instructional expenditures.

Support from the Bankhead-Jones and Morrill-Nelson programs represents a larger percent of the instructional budget for smaller institutions, further analysis reveals. In institutions with full-time-equivalent (FTE) enrollments under 10,000, Bankhead-Jones and Morrill-Nelson funds represented 1.3 percent of the total instructional budget. This compares with 0.6 percent for institutions with FTE enrollments from 10,000 to 20,000 and 0.3 percent for institutions with FTE enrollments over 20,000.

Similarly, Bankhead-Jones and Morrill-Nelson funds comprised a larger share of the average 1890 institution's instructional budget, compared with 1862 institutions. For 1890 institutions, Bankhead-Jones and Morrill-Nelson funds together comprised 1.4 percent of their instructional expenditures. This compares with 0.4 percent for 1862 institutions. Thus the 1890 institutions, all of which had FTE enrollments under 10,000 in 1978, fit the pattern for small land-grant institutions reported in the preceding paragraph.

Distribution of Bankhead-Jones and Morrill-Nelson Funds

The enabling legislation specifies how Bankhead-Jones and Morrill-Nelson funds are to be distributed (see "Current Allocations Under Bankhead-Jones and Morrill-Nelson"). This section examines the effect of the distributive guidelines upon land-grant institutions of different size, geographic location, and land-grant status.

Size of Institution. In absolute dollar amounts, institutions with larger enrollments on the average received more Bankhead-Jones funds than smaller institutions. As shown in Table 9, institutions with full-time-equivalent (FTE) enrollments over 20,000 received an average of \$235,000; those with FTE enrollments between 10,000 and 20,000 averaged \$178,000; and institutions with FTE enrollments under 10,000 received an average of \$102,000. This is as would be expected, since more populous States tend to have larger institutions and also more populous States receive larger sums because of the Bankhead-Jones' State-population-based formula.

Table 8

Size of enrollment, expenditure of Bankhead-Jones and Morrill-Nelson funds and total instructional expenditures, by discipline: fiscal year 1979

| Item | Agriculture and natural resources | Agriculture- related disciplines <u>1/</u> | Agriculture- related disciplines <u>1/</u> | All other disciplines |
|---|---|--|--|-----------------------------|
| Size of enrollment, as a percentage of total enrollment in land-grant institutions | 6.4 | 15.8 | 11.4 | 72.8 |
| Percentage of Bankhead-Jones and Morrill-Nelson funds allotted to disciplines <u>2/</u> | 22.3 | 38.0 | 26.9 | 35.1 |
| Percentage of total instructional expenditures allotted to disciplines by land-grant institutions <u>2/</u> | 4.7 | 15.8 | 9.7 | 74.5 |

1/ Disciplines include agriculture and natural sciences, home economics, biological sciences, veterinary medicine, and landscape architecture.

2/ Altogether, 59 institutions reported instructional expenditures totaling \$2,600,789,000 for 1978-79.

SOURCE: 1979 mail survey conducted by the National Association of State Universities and Land-Grant Colleges in cooperation with the U.S. Department of Agriculture.

Table 9

Amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions, by total enrollment: fiscal year 1979

| (Dollars in thousands) | | | | | | | | |
|------------------------|-------------------|------------------|------------------|------------------|----------------|------------------|----------------|-------|
| Total enrollment | : Number 1/ | : Bankhead-Jones | : Morrill-Nelson | : | | | | Total |
| | : of institutions | : Average amount | : Total amount | : Average amount | : Total amount | : Average amount | : Total amount | |
| | | : received | : received | : received | : received | : received | : received | |
| Total | : 71 | \$162 | \$11,500 | \$38 | \$2,700 | \$200 | \$14,200 | |
| Under 10,000 | : 31 | 102 | 3,175 | 30 | 916 | 132 | 4,091 | |
| 10,000-20,000 | : 19 | 178 | 3,382 | 45 | 846 | 223 | 4,228 | |
| Over 20,000 | : 21 | 235 | 4,943 | 45 | 938 | 280 | 5,881 | |
| | | | | | | | | |

SOURCE: 1979 mail survey conducted by the National Association of State Universities and Land-Grant Colleges in cooperation with the U.S. Department of Agriculture.

Table 10

Amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions per full-time-equivalent student, by total enrollment: fiscal year 1979

| Total enrollment 1/ | Full-time-equivalent enrollment (in thousands) | Amount received per full-time-equivalent student | | |
|---------------------|---|--|----------------|---------|
| | | Bankhead-Jones | Morrill-Nelson | Total |
| Total | 1,198.0 | \$9.60 | \$2.25 | \$11.85 |
| Under 10,000 | 157.7 | 20.13 | 5.81 | 25.94 |
| 10,000 - 20,000 | 289.8 | 11.67 | 2.92 | 14.59 |
| Over 20,000 | 750.5 | 6.59 | 1.25 | 7.84 |

1/ Includes graduate and undergraduate full-time-equivalent enrollment.

SOURCE: 1979 mail survey conducted by the National Association of State Universities and Land-Grant Colleges in cooperation with the U.S. Department of Agriculture.

Viewing the matter in terms of support per FTE student, it is the smaller institutions which averaged more Federal support. According to the data in Table 10, institutions with an FTE enrollment over 20,000 received under seven dollars of Bankhead-Jones funds per FTE student. This compares with \$12 per FTE student for institutions enrolling 10,000 - 20,000 and over \$20 for institutions under 10,000 in size. Smaller institutions also tended to receive more Morrill-Nelson funds per FTE student, with the smallest category of institutions receiving an average of \$5.81 per FTE student, compared with \$1.25 for the largest institutions (Table 10).

Region. The West received less Bankhead-Jones funds per State on the average than did any other region (\$194,000 vs. approximately \$220,000 for the other regions) as Table 11 reveals. This is as expected, because Western States are less populous on the average. Also, the 16 States with both 1862 and 1890 institutions, which are slightly more populous than other States, received slightly more funding under Bankhead-Jones on the average than the other jurisdictions (\$217,000 vs. \$206,000).

Shifting the focus from States to institutions brings other findings to light. For example, institutions in most Southern States and in several Northeastern States averaged smaller amounts of Bankhead-Jones and Morrill-Nelson funds than did institutions in other regions, because of the presence of two land-grant institutions in those States. Federal instructional funds are distributed on a State-by-State basis, not by institution. Table 12 shows that institutions in the South received an average of \$115,000 in Bankhead-Jones and \$27,000 in Morrill-Nelson funds. Institutions in the north-central region received the largest amount of Bankhead-Jones funds (\$206,000) while institutions in the West received the largest average amount of Morrill-Nelson funds (\$50,000).

Viewing support once again in terms of full-time-equivalent students, Table 13 shows roughly comparable support in all regions. Institutions in the Northeast and South generally received a little more Bankhead-Jones and Morrill-Nelson support per FTE student (\$12.70 and \$12.80) than the National average (\$11.85), while institutions in the North Central region received a little less (\$10.24).

Land-Grant Status. The States with 1862 and 1890 institutions gave less Bankhead-Jones and Morrill-Nelson support to their 1890 institutions than to the 1862 institutions. As shown in Table 14, 1890 institutions received an average of \$69,000 in 1978-79, compared with an average of \$198,000 on the part of 1862 institutions in the same States. This has been the pattern for dividing Bankhead-Jones and Morrill-Nelson funds over the past 14 years, an examination of Office of Education program data reveals. Generally, each institution has received about the same amount of support annually since 1966.

Table 11

Amount of Bankhead-Jones and Morrill-Nelson funds received by States in different regions, fiscal year 1979

| (Dollars in thousands) | | | | | | | | |
|------------------------|-------------|------------------|------------------|-----------|-----------|-----------|-----------|----------|
| | : Number | : Bankhead-Jones | : Morrill-Nelson | | | | Total | |
| Region 1/ | : of | :Average | Total | :Average | Total | :Average | Total | |
| | : States 2/ | : amount | : amount | : amount | : amount | : amount | : amount | |
| | | :received | :received | :received | :received | :received | :received | |
| : | | | | | | | | |
| Total | : | 54 | \$213 | \$11,500 | \$50 | \$2,700 | \$263 | \$14,200 |
| : | | | | | | | | |
| Northeast | : | 13 | 221 | 2,874 | 50 | 650 | 271 | 3,524 |
| North Central | : | 13 | 222 | 2,889 | 50 | 650 | 272 | 3,539 |
| South | : | 15 | 214 | 3,217 | 50 | 750 | 264 | 3,967 |
| West | : | 13 | 194 | 2,521 | 50 | 650 | 244 | 3,171 |
| : | | | | | | | | |

Table 12

Amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions in different regions, fiscal year 1979

| (Dollars in thousands) | | | | | | | | |
|------------------------|-------------|------------------|------------------|-----------|-----------|-----------|-----------|----------|
| | : Number | : Bankhead-Jones | : Morrill-Nelson | | | | Total | |
| Region 1/ | : of insti- | :Average | Total | :Average | Total | :Average | Total | |
| | : tutions | : amount | : amount | : amount | : amount | : amount | : amount | |
| | | :received | :received | :received | :received | :received | :received | |
| : | | | | | | | | |
| Total | : | 71 | \$162 | \$11,500 | \$38 | \$2,700 | \$200 | \$14,200 |
| : | | | | | | | | |
| Northeast | : | 16 | 180 | 2,874 | 41 | 650 | 220 | 3,524 |
| North Central | : | 14 | 206 | 2,889 | 46 | 650 | 253 | 3,539 |
| South | : | 28 | 115 | 3,217 | 27 | 750 | 142 | 3,967 |
| West | : | 13 | 194 | 2,521 | 50 | 650 | 244 | 3,171 |
| : | | | | | | | | |

Notes for Tables 11 and 12

1/ Regions are defined in Appendix R.

2/ Includes District of Columbia, Guam, Puerto Rico, and Virgin Islands.

SOURCE: 1979 mail survey conducted by the National Association of State Universities and Land-Grant Colleges in cooperation with the U.S. Department of Agriculture.

Table 13

Amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions per full-time-equivalent student, by region, fiscal year, 1979

| Region <u>1/</u> | Full-time- | Amount received per full- | | |
|------------------|----------------|---------------------------|----------|---------|
| | equivalent | time-equivalent student | | |
| | enrollment | Bankhead- | Morrill- | Total |
| | (in thousands) | Jones | Nelson | |
| Total | 1,197.9 | \$9.60 | \$2.25 | \$11.85 |
| Northeast | 277.4 | 10.36 | 2.34 | 12.70 |
| North Central | 345.6 | 8.36 | 1.88 | 10.24 |
| South | 309.8 | 10.38 | 2.42 | 12.80 |
| West | 265.1 | 9.51 | 2.45 | 11.96 |

1/ Regions are defined in Appendix R.

SOURCE: 1979 mail survey conducted by the National Association of State Universities and Land-Grant Colleges in cooperation with the U.S. Department of Agriculture.

Table 14

Amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions, by land-grant status, fiscal year 1979

| (Dollars in thousands) | | | | | | | | |
|---|-------|----------------------|----------------|----------|----------|----------------|----------|----------|
| Land-grant status | : | : | Bankhead-Jones | | | Morrill-Nelson | | Total |
| | : | Number | Average | Total | Average | Total | Average | Total |
| | : | of insti- tutions | amount | amount | amount | amount | amount | amount |
| | : | received | received | received | received | received | received | received |
| | Total | 71 | \$162 | \$11,500 | \$38 | \$2,700 | \$200 | \$14,200 |
| 1890 institution | 16 | 56 | 894 | 13 | 212 | 69 | 1,106 | |
| 1862 institution | 55 | 193 | 10,606 | 45 | 2,488 | 238 | 13,094 | |
| 1862 institution in State with 1890 institution | 16 | 161 | 2,578 | 37 | 588 | 198 | 3,166 | |
| All other 1862 institutions | 39 | 206 | 8,028 | 49 | 1,900 | 255 | 9,928 | |

SOURCE: 1979 mail survey conducted by the National Association of State Universities and Land-Grant Colleges in cooperation with the U.S. Department of Agriculture.

Table 15

Amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions per full-time-equivalent student, by land-grant status, fiscal year 1979

| Land-grant status | Full-time- equivalent enrollment (in thousands) | Amount received per full- time-equivalent student | | |
|---|--|--|-------------------|---------|
| | | Bankhead- Jones | Morill- Nelson | Total |
| Total | 1,198.0 | \$9.60 | \$2.25 | \$11.85 |
| 1890 institution | 52.4 | 17.07 | 4.05 | 21.12 |
| 1862 institution | 1,145.6 | 9.26 | 2.17 | 11.43 |
| 1862 institution in State with 1890 institution | 323.0 | 7.98 | 1.82 | 9.80 |
| All other 1862 institutions | 822.6 | 9.76 | 2.31 | 12.07 |

SOURCE: 1979 mail survey conducted by the National Association of State Universities and Land-Grant Colleges in cooperation with the U.S. Department of Agriculture.

As for support per FTE student, Table 15 shows that on the average 1890 institutions received more than the 1862 institutions in the same States, with support approximating \$21 and \$10 per FTE student respectively. Thus, while 1862 institutions generally received nearly three times as much support in absolute terms, the 1890 institutions averaged twice the support per FTE student. Further analysis reveals that small 1862 institutions received more support per FTE student than medium and large 1862 institutions. Comparing 1862 institutions in States which have no 1890 institution, those with an FTE enrollment under 10,000 averaged \$28 per FTE student, while those with larger enrollments averaged \$10. This means that the 1862 institutions in States with 1890 institutions received about the same level of support as medium and large 1862 institutions in other States (averaging \$9.80 per FTE student vs. \$9.68), whereas 1890 institutions averaged less per FTE student than small 1862 institutions (\$21 vs. \$28 respectively). 15/

Interpretative Note. The reader is cautioned against drawing conclusions about the fairness of the division of Bankhead-Jones and Morrill-Nelson funds in States with two land-grant institutions on the basis of the above data. Support per FTE student has no basis in law, where Bankhead-Jones and Morrill-Nelson are concerned, as would, for example, a population statistic (e.g. the number of black and white residents per State). The fairness issue is a complex one, remaining for the most part beyond the scope of this review.

Activities Funded by Bankhead-Jones and Morrill-Nelson Funds

This section describes the activities supported by Bankhead-Jones and Morrill-Nelson funds, based on reports received from land-grant institutions.

Approximately four out of every five Bankhead-Jones dollars were allocated to faculty salaries, the remainder to instructional equipment. The ratio for Morrill-Nelson funds ran even higher in favor of salary expenditures, approximating nine out of every ten dollars expended.

Most of the funds were expended for regular faculty salaries. A small university in the Plains provided a typical report:

These funds permit the employment of 8 to 10 classroom instructors in disciplines which require small group instruction in order to be well understood.

An 1890 institution noted:

These funds have been used to support flexible faculty persons who are both teachers and research scholars.

15/ All 1890 institutions enrolled under 10,000 FTE students. Of the 1862 institutions in States with 1890 institutions, seven had an FTE enrollment between 10,000 and 20,000; and nine had an FTE enrollment over 20,000.

A medium-sized university reported that:

In the College of Human Ecology...Bankhead-Jones funds currently support one lecturer and eight teaching assistants--nearly 15 percent of the TA's employed by the College. ...Traditionally, (we have) used Bankhead-Jones and Morrill-Nelson funds to support faculty salaries in the Colleges of Engineering and of Arts and Sciences. In a typical recent year, Bankhead-Jones supported eight faculty members in Engineering, three in Chemistry, and two in English.

A university in Appalachia commented that:

The availability of Bankhead-Jones funds assists in maintaining the current level of agriculture salaries.

Although Bankhead-Jones and Morrill-Nelson funds were primarily expended on salaries, including special professional positions, some institutions used these funds for special events such as programs and guest speakers, or for instructional equipment. For example, a West Coast institution reported that:

Nearly one-half of the total funds were devoted to bringing to the campus individuals who...would otherwise not be available or who could be contacted only at very substantial travel cost and on a far more limited basis.

The area of special programs also is a major focus of the Bankhead-Jones funds and results in the development of activities on the campus that would not otherwise be possible.

...A modest amount of resources is devoted to curricular development.

Other institutions mentioned their use for curriculum development, guest faculty, field trips, student support and the library (including \$90,000 worth of materials at one Northeastern institution). A New England institution reported the development and introduction of a cartography program, using these funds. At least one institution found these Federal funds to be valuable tools in convincing its State legislature to provide more State funds to the institution. A Midwestern university official reported:

The presence of these Federal funds is believed to have a positive impact on the (State) Legislature for continued support of the remainder of the university's instructional programs. Loss of these funds would mean the university would have to reduce its existing teaching personnel in a number of critical programs currently supported by Federal funds.

A number of institutions indicated considerable pride in the activities made possible by these funds.

Land-Grant Perspectives About the Bankhead-Jones Program

This section reports how officials of land-grant institutions view the Bankhead-Jones program. Presentation of these views should not be considered to imply endorsement. The remarks of some campus officials raise issues which have not been examined within the scope of this review. The purpose of presenting these views is to convey how campus officials view the Bankhead-Jones program.

The text below summarizes perspectives received during telephone interviews and through the mail survey. Perspectives range from considerations of the nature of Bankhead-Jones to its effects, the current level of fundings, and the impact of a cut in funds. Examples of comments by officials from land-grant institutions may be found in Appendix Q. Responses received from telephone interviews appear in Appendix P.

The main features of these programs, as campus officials see it, are as follows:

- Flexibility in determining use;
- Availability of "seed" money;
- Extra funds available for improving the quality of programs; and
- The commitment of the Federal government to the land-grant concept in the provision of higher education as well as in research and extension.

Officials of land-grant institutions reported the benefits of Bankhead-Jones funds as follows:

- Opportunity for enhancement and enrichment of programs;
- Resources for improving the quality of programs, staff capability, and service to students;
- Impetus for redesign of curricular offerings; and
- Resources for adding faculty and facilities.

The land-grant officials also indicated that the funds serve a number of other purposes:

- They specifically reflect a Federal commitment to higher education in agriculture and engineering;
- They support instruction that otherwise would require a hike in student fees; and
- They support land-grant institutions' contribution to technological advances in agriculture to meet the world's food and agricultural needs.

APPENDIXES

APPENDIX A

Congressional Directive for Review of Bankhead-Jones Program

In framing the Agriculture, Rural Development and Related Agencies Appropriation Bill for fiscal year 1980, the House and Senate Conference Committee issued the following directive:

Amendment No. 37: Earmarks \$11,500,000 for grants under the Bankhead-Jones program as proposed by the House instead of \$3,000,000 as proposed by the Senate in Amendment No. 39. The conferees will expect that, to the maximum extent possible, these grants will be used only in support of agricultural education as discussed in the Senate report.

The conferees will also expect the Department, along with appropriate nongovernmental representatives, to conduct a detailed review of the Bankhead-Jones program, including the original intent of the legislation, and report their findings to the appropriate committees of Congress by March 1, 1980. (Conference Report 96-553, which accompanied H.R. 4387, p. 16)

This followed a directive issued by the Senate Committee, which in determining the Agriculture, Rural Development and Related Agencies Appropriation Bill for fiscal year 1980 stated:

The Committee has provided \$3,000,000 in the bill for Bankhead-Jones grants to the States for higher education, but earmarked these funds exclusively for agricultural education. The budget included no funds, but the House bill added \$11,500,000. Funds in the bill exceed amounts actually utilized for agricultural education in 1979. The Department testified that only 18 percent of the payments made to States in accordance with section 22 of the Bankhead-Jones Act are being used for direct support of agricultural education. The Committee directs that the funds provided be distributed in such a manner that there is no decrease in the amount provided to any land-grant university for direct support of agricultural education. Funds available beyond what is required to meet those needs shall be distributed in the traditional manner and shall be used only for the support of agricultural education. (Senate Report 96-246, which accompanied H.R. 4387, p. 40)

APPENDIX B

Federal Laws, Rulings, and Opinions Related to Bankhead-Jones

Act of July 2, 1862 (First Morrill Act)

[Providing for the Endowment, Support and Maintenance of Colleges of Agriculture and Mechanic Arts]

[AN ACT Donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts]

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That there be granted to the several States, for the purposes hereinafter mentioned, an amount of public land, to be apportioned to each State a quantity equal to thirty thousand acres for each Senator and Representative in Congress to which the States are respectively entitled by the apportionment under the census of 1860; Provided, That no mineral lands shall be selected or purchased under the provisions of this act.

SEC. 2. And be it further enacted, That the land aforesaid, after being surveyed, shall be apportioned to the several States in sections or subdivisions of sections, not less than one-quarter of a section; and wherever there are public lands in a State, subject to sale at private entry at one dollar and twenty-five cents per acre, the quantity to which said State shall be entitled shall be selected from such lands, within the limits of such State; and the Secretary of the Interior is hereby directed to issue to each of the States, in which there is not the quantity of public lands subject to sale at private entry, at one dollar and twenty-five cents per acre, to which said State may be entitled under the provisions of this act, land scrip to the amount in acres for the deficiency of its distributive share; said scrip to be sold by said States, and the proceeds thereof applied to the uses and purposes prescribed in this act, and for no other purpose whatsoever: Provided, That in no case shall any State to which land scrip may thus be issued be allowed to locate the same within the limits of any other State, or of any territory of the United States; but their assignees may thus locate said land scrip upon any of the unappropriated lands of the United States subject to sale at private entry, at one dollar and twenty-five cents, or less, an acre: And provided further, That not more than one million acres shall be located by such assignees in any one of the States: And provided further, That no such location shall be made before one year from the passage of this act.

SEC. 3. And be it further enacted, That all the expenses of management, superintendence, and taxes from date of selection of said lands, previous to their sales, and all expenses incurred in the management and disbursement of moneys which may be received therefrom, shall be paid by the States to which they may belong, out of the treasury of said States, so that the entire proceeds of the sale of said lands shall be applied, without any diminution whatever, to the purposes hereinafter mentioned.

SEC. 4 (as amended April 13, 1926, 44 Stat. L. 247). That all moneys derived from the sale of lands aforesaid by the States to which lands are apportioned and from the sales of land scrip hereinbefore provided for shall be invested in bonds of the United States or of the States or some other safe bonds; or the same may be invested by the States having no State bonds in any manner after the legislatures of such States shall have assented thereto and engaged that such funds shall yield a fair and reasonable rate of return, to be fixed by the State legislatures, and that the principal thereof shall forever remain unimpaired: Provided, That the moneys so invested or loaned shall constitute a perpetual fund, the capital of which shall remain forever undiminished (except so far as may be provided in section 5 of this act), and the interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

SEC. 5. And be it further enacted, That the grant of land and land scrip hereby authorized shall be made on the following conditions, to which, as well as to the provisions hereinbefore contained, the previous assent of the several States shall be signified by legislative acts:

First. If any portion of the fund invested, as provided by the foregoing section, or any portion of the interest thereon, shall, by any action or contingency, be diminished or lost, it shall be replaced by the State to which it belongs, so that the capital of the fund shall remain forever undiminished; and the annual interest shall be regularly applied without diminution to the purposes mentioned in the fourth section of this act, except that a sum, not exceeding 10 per centum upon the amount received by any State under the provisions of this act, may be expended for the purchase of lands for sites or experimental farms, whenever authorized by the respective legislatures of said States;

Second. No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings;

Third. Any State which may take and claim the benefit of the provisions of this act shall provide, within five years, at least not less than one college, as prescribed in the fourth section of this act, or the grant to such State shall cease; and said State shall be bound to pay the United States the amount received of any lands previously sold, and that the title to purchasers under the State shall be valid;

Fourth. An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their costs and results, and such other matters, including State industrial and economical statistics, as may be supposed useful; one copy of which shall be transmitted by mail free, by each, to all the other colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior;

Fifth. When lands shall be selected from those which have been raised to double the minimum price in consequence of railroad grants, they shall be computed to the States at the maximum price, and the number of acres proportionally diminished;

Sixth. No State, while in a condition of rebellion or insurrection against the Government of the United States, shall be entitled to the benefit of this act;

Seventh. No State shall be entitled to the benefits of this act unless it shall express its acceptance thereof by its legislature within two years from the date of its approval by the President.

SEC. 6. And be it further enacted, That land scrip issued under the provisions of this act shall not be subject to location until after the first day of January, 1863.

SEC. 7. And be it further enacted, That land officers shall receive the same fees for locating land scrip issued under the provisions of this act as is now allowed for the location of military bounty land warrants under existing laws: *Provided*, That maximum compensation shall not be thereby increased.

SEC. 8. And be it further enacted, That the governors of the several States to which scrip shall be issued under this act shall be required to report annually to Congress all sales made of such scrip until the whole shall be disposed of, the amount received for the same, and what appropriation has been made of the proceeds.

Approved, July 2, 1862. (12 Stat. 503.)

Act of 1866 Amending First Morrill Act

[Providing for the Extension of Time Within Which States May Accept Provisions of First Morrill Act]

AN ACT To amend the fifth section of an act entitled "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," approved July 2, 1862, so as to extend the time within which the provisions of said act shall be accepted and such colleges established.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the time in which the several States may comply with the provisions of the act of July second, eighteen hundred and sixty-two, entitled "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," is hereby extended so that the acceptance of the benefits of the said act may be expressed within three years from the passage of this act, and the colleges required by the said act may be provided within five years from the date of the filing of such acceptance with the Commissioner of the General Land Office: *Provided*, That when any Territory shall become a State and be admitted into the Union such new States shall be entitled to the benefits of the said act of July second, eighteen hundred and sixty-two, by expressing the acceptance therein required within three years from the date of its admission into the Union, and providing the college or colleges within five years after such acceptance, as prescribed in this act: *Provided further*, That any State which has heretofore expressed its acceptance of the act herein referred to shall have the period of five years within which to provide at least one college as described in the fourth section of said act, after the time for providing said college, according to the act of July second, eighteen hundred and sixty-two, shall have expired.

Approved, July 23, 1866. (14 Stat. 208.)

Digest of Rulings and Opinions on Act of July 2, 1862

Accounting and reports.—"Accounts should be kept by the proper officers" of all the States having grants "showing all the facts relating to the sale and leasing of lands granted for agricultural colleges, and the receipt, investment, and disposition of the proceeds arising from such sales and leases; and such officers should, when called on to do so, timely report such facts to the Secretary of the Interior or permit an ascertainment of such facts through inspection and examination of their records by some officer of the Government or other person designated by the Secretary of the Interior for that purpose."

The representatives of the Office of Education or some other officer designated by the Secretary of the Interior should, through reports from the officers of each of the States, or otherwise, from time to time as the occasion may require, ascertain all facts and conditions tending to show the manner in which the funds arising from the lands granted for agricultural colleges are being handled, invested, and disposed of; or furnish a full statement thereof to the Secretary of the Interior.—*Rulings approved by the Secretary of the Interior, October 11, 1923.*

In order that the Department of the Interior through the Commissioner of Education may be able to ascertain whether or not the States are complying with the provisions of the act of 1862, the institutions receiving the benefit of that act are required to submit a statement of the disbursements of the annual income received by them under said act.—*Ruling of Secretary of the Interior, July 11, 1930.*

Division of fund.—"A State may by appropriate legislation divide the original" 1862 land-grant "fund into two parts and provide that the interest of each part shall be available to a particular college and vest in such college, as an agency of the State, the duty of investing its particular part of the funds in bonds of the United States or of the State or some other safe bonds, the determination of the safety of which is to rest with the college."—*Ruling of Secretary of the Interior, September 18, 1935.*

Income and its use.—"The income" from the 1862 land-grant endowment "is not a fiscal year or limited fund. It must remain forever at the disposal of the institution entitled to the benefit of the fund. Nor may it ever be covered into the general State funds or used for general State purposes. There can be no default to the State by the institution."

"Proceeds from rentals, sale of timber rights, water rights, and other privileges, and interest on deferred payments of purchase money partake of the same character as the income from invested funds, and must be devoted, without diminution, to the purposes" of the act.

"The only restriction placed by the act of Congress of July 2, 1862, upon the expenditures of the income derived from the sale of public lands granted for the endowment of colleges of agriculture and the mechanic arts and the investment of the purchase money is that no part of such income may be expended for the purchase, erection, preservation, or repair of any building or buildings, nor may this income be used for the purchase of land."—*Rulings of Secretary of the Interior, May 28, 1916.*

Instruction for women students.—Instruction in the industries for women is included in instruction in agriculture and mechanic arts.—*Ruling of Secretary of the Interior, May 28, 1916.*

Military tactics.—An agricultural college which offers a proper, substantial course in military tactics complies sufficiently with the requirements as to military tactics in the act of July 2, 1862, and the other acts, even though the students at that institution are not compelled to take that course.—*Opinion of Attorney General, June 30, 1930.*

Default of act of 1862.—The act of 1890 (26 Stat. 417) with the amendment of 1907 (34 Stat. 1281) is supplementary to the act of 1862; therefore any default of the provisions of the act of 1862 renders the State liable for non-certification for the annual installments of the funds appropriated by the acts of 1890 and 1907.—*Ruling of Secretary of the Interior, May 28, 1916.*

Act of August 30, 1890 (Second Morrill Act)

{Providing for the Further Endowment and Support of Colleges of Agriculture and Mechanic Arts}

[AN ACT To apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts established under the provisions of an act of Congress approved July second, eighteen hundred and sixty-two]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be, and hereby is, annually appropriated, out of any money in the Treasury not otherwise appropriated, arising from the sale of public lands, to be paid as hereinafter provided, to each State and Territory for the more complete endowment and maintenance of colleges for the benefit of agriculture and the mechanic arts now established, or which may be hereafter established, in accordance with an act of Congress approved July second, eighteen hundred and sixty-two, the sum of fifteen thousand dollars for the year ending June thirtieth, eighteen hundred and ninety, and an annual increase of the amount of such appropriation thereafter for ten years by an additional sum of one thousand dollars over the preceding year, and the annual amount of be paid thereafter to each State and Territory shall be twenty-five thousands dollars to be applied only to instruction in agriculture, the mechanic arts, the English language and the various branches of mathematical, physical, natural, and economic science, with special reference to their applications in the industries of life, and to the facilities for such instruction: Provided, That no money shall be paid out under this act to any State or Territory for the support and maintenance of a college where a distinction of race or color is made in the admission of students, but the establishment and maintenance of such colleges separately for white and colored students shall be held to be a compliance with the provisions of this act if the funds received in such State or Territory be equitably divided as herein-after set forth: Provided, That in any State in which there has been one college established in pursuance of the act of July second, eighteen hundred and sixty-two, and also in which an educational institution of like character has been established, or may be hereafter established, and is now aided by such State from its own revenue, for the education of colored students in agriculture and the mechanic arts, however named or styled, or whether or not it has received money heretofore under the act to which this act is an amendment, the legislature of such a State may propose and report to the Secretary of the Interior

a just and equitable division of the fund to be received under this act between one college for white students and one institution for colored students established as aforesaid, which shall be divided into two parts and paid accordingly, and thereupon such institution for colored students shall be entitled to the benefits of this act and subject to its provisions, as much as it would have been if it had been included under the act of eighteen hundred and sixty-two, and the fulfillment of the foregoing provisions shall be taken as a compliance with the provision in reference to separate colleges for white and colored students.

SEC. 2. That the sums hereby appropriated to the States and Territories for the further endowment and support of colleges shall be annually paid on or before the thirty-first day of July of each year, by the Secretary of the Treasury, upon the warrant of the Secretary of the Interior, out of the Treasury of the United States, to the State or Territorial treasurer, or to such officer as shall be designated by the laws of such State or Territory to receive the same, who shall, upon the order of the trustees of the college, or the institution for colored students, immediately pay over said sums to the treasurers of the respective colleges or other institutions entitled to receive the same, and such treasurer^{*} shall be required to report to the Secretary of Agriculture and to the Secretary of the Interior, on or before the first day of September of each year, a detailed statement of the amount so received and of its disbursement. The grants of moneys authorized by this act are made subject to the legislative assent of the several States and Territories to the purpose of said grants: *Provided*, That payments of such installments of the appropriation herein made as shall become due to any State before the adjournment of the regular session of legislature meeting next after the passage of this act shall be made upon the assent of the governor thereof, duly certified to the Secretary of the Treasury.

SEC. 3. That if any portion of the moneys received by the designated officer of the State or Territory for the further and more complete endowment, support, and maintenance of colleges, or of institutions for colored students, as provided in this act, shall, by any action or contingency, be diminished or lost, or be misappropriated, it shall be replaced by the State or Territory to which it belongs, and until so replaced no subsequent appropriation shall be apportioned or paid to such State or Territory; and no portion of said moneys shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings. An annual report by the president of each of said colleges shall be made to the Secretary of Agriculture, as well as to the Secretary of the Interior, regarding the condition and progress of each college, including statistical information in relation to its receipts and expenditures, its library, the number of its students and professors, and also as to any improvements and experiments made under the direction of any experiment stations attached to said colleges, with their costs and results, and such other industrial and economical statistics as may be regarded as useful, one copy of which shall be transmitted by mail free to all other colleges further endowed under this act.

SEC. 4. That on or before the first day of July in each year, after the passage of this act, the Secretary of the Interior shall ascertain and certify to the Secretary of the Treasury as to each State and Territory whether it is entitled to receive its share of the annual appropriation for colleges, or of institutions for colored students, under this act, and the amount which thereupon each is entitled, respectively, to receive. If the Secretary of the Interior shall withhold a certificate from any State or Territory of its appropriation, the facts and reasons therefor shall be reported to the President, and the amount involved shall be kept separate in the Treasury until the close of the next Congress, in order that the State or Territory may, if it should so desire, appeal to Congress from the determination of the Secretary of the Interior. If the next Congress shall not direct such sum to be paid, it shall be covered into the Treasury. And the Secretary of the Interior is hereby charged with the proper administration of this law.

* Treasurers of the respective colleges, not State treasurers. (Ruling Oct. 19, 1917.)

SEC. 5. That the Secretary of the Interior shall annually report to Congress the disbursements which have been made in all the States and Territories, and also whether the appropriation of any State or Territory has been withheld, and if so, the reasons therefor.

SEC. 6. Congress may at any time amend, suspend, or repeal any or all of the provisions of this act.

Approved, August 30, 1890. (26 Stat. 417.)

Nelson Amendment of March 4, 1907

[Providing for the More Complete Endowment and Maintenance of Land-Grant Colleges]

[Extract from an act making appropriations for the Department of Agriculture for the fiscal year ending June thirtieth, nineteen hundred and eight]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled.

That there shall be, and hereby is, annually appropriated, out of any money in the Treasury not otherwise appropriated, to be paid as hereinafter provided, to each State and Territory for the more complete endowment and maintenance of agricultural colleges now established, or which may hereafter be established, in accordance with the act of Congress approved July second, eighteen hundred and sixty-two, and the act of Congress approved August thirtieth, eighteen hundred and ninety, the sum of five thousand dollars, in addition to the sums named in said act for the fiscal year ending June thirtieth, nineteen hundred and eight, and an annual increase of the amount of such appropriation thereafter for four years by an additional sum of five thousand dollars over the preceding year, and the annual sum to be paid thereafter to each State and Territory shall be fifty thousand dollars, to be applied only for the purposes of the agricultural colleges as defined and limited in the act of Congress approved July second, eighteen hundred and sixty-two, and the act of Congress approved August thirtieth, eighteen hundred and ninety.

That the sum hereby appropriated to the States and Territories for the further endowment and support of the colleges shall be paid by, to, and in the manner prescribed by the act of Congress approved August thirtieth, eighteen hundred and ninety, entitled "An act to apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts established under the provisions of the act of Congress approved July second, eighteen hundred and sixty-two," and the expenditure of the said money shall be governed in all respects by the provisions of the said act of Congress approved July second, eighteen hundred and sixty-two, and the said act of Congress approved August thirtieth, eighteen hundred and ninety: *Provided*, That said colleges may use a portion of this money for providing courses for the special preparation of instructors for teaching the elements of agriculture and the mechanic arts.

Approved, March 4, 1907. (34 Stat. L. 1281.)

**Digest of Rulings and Opinions on Acts of August 30, 1890, and
March 4, 1907**

Time limit on expenditure of funds.—"The moneys appropriated by the act of August 30, 1890" are "in the nature of an annuity to be used from year to year" and cannot be "accumulated or converted into an interest-bearing fund."—*Decision of Attorney General, June 20, 1899.*

The Department will insist on the expenditure of substantially the entire amount appropriated by the act of August 30, 1890, and the boards of control of agricultural and mechanic arts colleges are requested to make provision for such expenditures. It is understood of course that contracts may be entered into for educational material, which, for good reasons, may not be ready and paid for until the following year. In such cases it is sufficient to explain by a note in the annual report that the balance is held for the purpose of liquidating bills already incurred, and stating the nature of the outstanding contracts.—*Ruling of the Secretary of the Interior, December 7 1900.*

Accrued interest on appropriations.—"Interest accruing upon funds" under the acts of August 30, 1890, and March 4, 1907, "is interest accruing to the United States and should be covered into the United States Treasury as miscellaneous receipts." The funds in question should be deposited by the treasurers of the institutions "in banks as custodians for funds of the United States and any interest accruing thereon should be for disposition as herein indicated."—*Opinion of Comptroller General of United States, January 16, 1933.*

Accrued interest must be accounted for and covered into the United States Treasury at the close, June 30, of each fiscal year. The funds must be kept in a deposit account separate from all other funds. The person duly designated to receive the funds is responsible for the accounting of such interest as may be credited to the deposit account by the bank in which the deposit account is maintained. Checks covering interest accrued for each fiscal year should be mailed with the annual reports and will be forwarded to the Treasurer of the United States as miscellaneous receipts.—*Ruling of Secretary of the Interior, June 5, 1933.*

In the light of decisions of the Comptroller General addressed to the Secretary of Agriculture dated January 16, 1933, and March 27, 1933, the Commissioner of Education has ruled as follows with respect to the Morrill-Nelson-Bankhead-Jones funds:

It will not be necessary, therefore, to require that separate bank deposit accounts be maintained for Morrill-Nelson and Bankhead-Jones funds, provided interest is not paid on funds deposited in bank for land-grant college or university. However, if interest is paid on funds on deposit in bank for the college or university, it will be necessary to require that separate bank accounts for Morrill-Nelson and Bankhead-Jones funds be maintained as heretofore.—*Letter of the U.S. Commissioner of Education to Presidents and Treasurers of Land-grant Colleges and Universities, October 11, 1941.*

Expenditures of funds for different purposes.—No part of these funds may be "expended for grounds for building sites" or "for lands for use in the practical training of students in agriculture."—*Opinion of Attorney General, March, 1891.*

Purchases from these funds of "apparatus, machinery, textbooks, reference books, stock and material used in instruction, or for purposes of illustration

in connection with any of the branches enumerated" in the act of August 30, 1890, are permissible.—*Ruling of Secretary of the Interior, August 3, 1899.*

In the case of the purchase of "machinery (such as boilers, engines, pumps, etc.) and farm stock, which are made to serve for both instructional and other purposes, the Federal funds may be charged with only an equitable portion of the cost of said machinery and stock."

"Expenditures for permanent improvements to buildings, grounds and farms, such as clearing, draining and fencing lands," are not allowable from these funds.—*Rulings of Secretary of the Interior, November 2, 1911.*

Use of funds for salaries.—The "salary of the treasurer" of the college is not "a legitimate charge against the funds" and cannot properly be paid from them.—*Opinion of Attorney General, March 7, 1894.*

"The salaries of purely administrative officers, such as presidents, treasurers, secretaries, bookkeepers, janitors, watchmen, etc., cannot be charged" to these funds, "nor the salaries of other administrative officers, like superintendents, foremen, and matrons, and the wages of unskilled laborers and assistants in shops, laboratories, and fields."

When an administrative officer also gives instruction in any of the branches of study mentioned in the act of August 30, 1890, or when an instructor gives such instruction and also devotes part of his time to giving instruction in branches of study not mentioned in the said act, only a part of such person's salary proportionate to the time devoted to giving instruction in the branches of the study mentioned in said act can be charged to these funds. In the division of the time between instructional and other services, 1 hour of instruction shall be regarded as the equivalent of 2 hours of administrative, supervisory, or experiment station work.

The funds cannot be used for "salaries of instructors in philosophy, psychology, ethics, logic, history, civil government, military science and tactics, and in ancient and modern languages (except English.)"—*Rulings of Secretary of the Interior, August 3, 1899, November 2, 1911, and May 23, 1916.*

The funds cannot be used "for the salaries of instructors, improperly trained or incompetent for the positions they are supposed to fill; nor may they be used for salaries or expenses of the experiment station staff; nor for instructors employed in research work or in collecting, classifying and arranging specimens, collections or exhibits."—*Ruling of Secretary of the Interior, May 23, 1916.*

Subjects of instruction allowed.—In order that greater uniformity in the reports of the treasurers may be obtained in the future, the following classification of subjects that may be included under the several schedules has been prepared, such classification to be adhered to by the treasurers of the various institutions in the preparation of their annual reports:

A. *Instruction in agriculture.*—Agriculture, horticulture, forestry, agronomy, animal husbandry, dairying, veterinary medicine, poultry husbandry, and apiculture.

B. *Instruction in mechanic arts.*—Mechanical engineering, civil engineering, electrical engineering, irrigation engineering, mining engineering, marine engineering, railway engineering, experimental engineering, textile industry, architecture, machine design, mechanical drawing, ceramics, stenography, typewriting, telegraphy, printing, and shopwork.

C. *Instruction in English language.*—English language, English literature, composition, rhetoric, and oratory.

D. Instruction in mathematical sciences.—Mathematics, bookkeeping, and astronomy.

E. Instruction in natural and physical sciences.—Chemistry, physics, biology, botany, zoology, geology, mineralogy, metallurgy, entomology, physiology, bacteriology, pharmacy, physical geography, and meteorology.

F. Instruction in economic sciences.—Political economy, home economics, commercial geography, and sociology.

G. Special preparation of teachers.—History of industrial education (with special reference to agriculture, mechanic arts, and home economics); methods of teaching agriculture, mechanic arts, and home economics; special instructions to persons teaching agriculture, mechanic arts, and home economics.—*Rulings of Secretary of the Interior, December 7, 1900, and May 23, 1916.*

Expenditures from the funds provided by the act of March 4, 1907, are not authorized "for general courses in pedagogy, psychology, history of education, and methods of teaching."—*Rulings of Secretary of the Interior, November 2, 1911, and May 23, 1916.*

The funds cannot be "expended for instruction in the elementary subjects, or their equivalent, included in the first 6 years of the course of study of the public schools of the States in which each institution is located, excepting for students 14 years or over who are devoting at least one-half of their time in industrial subjects as preparatory work in the mechanical trades, industries for women, or agriculture."

All or part of the funds provided by the act of March 4, 1907, may be used "for providing courses for the special preparation of instructors for teaching the elements of agriculture and mechanic arts." It is held that this language authorizes expenditures for instruction in the history of agriculture and industrial education, in methods of teaching agriculture, mechanic arts, and home economics, and also for special aid and supervision given to teachers actively engaged in teaching agriculture, mechanic arts, and home economics in public schools.—*Rulings of Secretary of the Interior, May 23, 1916.*

The board of control of a system of higher education in a State has not the authority to change the designation of the land-grant college from one institution under its jurisdiction to another.

It is therefore the opinion of this Office that the Administrator may not accept the change in designation of the Negro land-grant college by the Board of Regents of the University of Georgia, but must insist that the Federal grant continue to be available to the Georgia State College until such time as the State legislature may by change of designation redirect the money to the use of another institution.—*Opinion of General Counsel, Federal Security Agency, January 3, 1949.*

All Colleges Designated as "Land-Grant" Are Operated Under the Provisions of the Morrill Act of 1862

It is the opinion of this Office that the Negro institutions which receive a part of the Federal funds provided under the Morrill Acts and supplementary legislation (12 Stat. 503; 26 Stat. 417; 34 Stat. 1281; and 49 Stat. 439) are governed by the same legal provisions which govern other land-grant colleges, including the requirement of the Act of July 2, 1862, that military tactics be taught therein. The fact of segregation itself does not affect the designated institution's rights and obligations, and Morrill Act funds are specifically available only to institutions established "in accordance with" the conditions of the 1862 enactment. The legislative history and the recorded interpretations of the Acts also enforce the conclusion that there is no legal basis for a failure to require a substantial course in military tactics to be offered by Negro institutions participating in grants under all or any of the four Acts of Congress noted above.

—*Opinion of the General Counsel, Federal Security Agency, July 13, 1949*

**Bankhead-Jones Act of June 29, 1935, as Amended June
1952 and July 14, 1960**

[Providing for research into basic laws and principles relating to agriculture, further development of cooperative agricultural extension work, and more complete endowment and support of land-grant colleges]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

[NOTE.—Only the section of this act applicable to the Morrill and Supplementary Morrill Funds for land-grant colleges is given.]

SEC. 22. In order to provide for the more complete endowment and support of the colleges in the several States and Puerto Rico entitled to the benefits of the Act entitled "An Act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," approved July 2, 1862, as amended and supplemented (7 U.S.C. 301-328), there are hereby authorized to be appropriated annually, out of any money in the Treasury not otherwise appropriated, the following amounts:

(a) For the first fiscal year beginning after the date of enactment of this Act, and for each fiscal year thereafter, \$7,650,000; and

(b) For the first fiscal year beginning after the date of enactment of this Act, and for each fiscal year thereafter, \$4,300,000.

The sums appropriated in pursuance of paragraph (a) shall be paid annually to the several States and Puerto Rico in equal shares. The sums appropriated in pursuance of paragraph (b) shall be in addition to sums appropriated in pursuance of paragraph (a) and shall be allotted and paid annually to each of the several States and Puerto Rico in the proportion to which the total population of each State and Puerto Rico bears to the total population of all the States and Puerto Rico as determined by the last preceding decennial census. Sums appropriated in pursuance of this section shall be in addition to sums appropriated or authorized under such Act of July 2, 1862, as amended and supplemented, and shall be applied only for the purposes of the colleges defined in such Act, as amended and supplemented. The provisions of law applicable to the use and payment of sums under the Act entitled "An Act to apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts established under the provisions of an Act of Congress approved July 2, 1862," approved August 30, 1890, as amended and supplemented, shall apply to the use and payment of sums appropriated in pursuance of this section.

Approved, June 29, 1935; amended June 12, 1952 (Public Law 390, 82d Congress); and amended July 14, 1960 (Public Law 86-658, 86th Cong.).

Digest of Rulings and Opinions on Act of June 29, 1935

For the purposes of administration, the funds provided by the Morrill Act of 1890, the Nelson Act of 1907, and Section 22 of the Bankhead-Jones Act of 1935, have been given the designation, "Supplementary Morrill Fund."—*Ruling of Secretary of the Interior, February 12, 1936.*

**No Authority for State Legislatures To Appropriate Supplementary
Morrill Funds**

In brief, my opinion, based upon the legislative history of the Act, its long history of administrative interpretation, and upon judicial holdings, is that an appropriation by the State Legislature is neither necessary nor permissible under the acts in question, and that these acts require that the Federal funds be available to the properly designated colleges immediately upon request.—*Opinion of General Counsel, Federal Security Agency, August 3, 1943.*

Bankhead-Jones Administration is Transferred to the U. S. Department of Agriculture

Under the provision of Title XIV, the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 USC 3101), the administration of Bankhead-Jones funds was transferred from the U.S. Department of Health, Education, and Welfare to the U. S. Department of Agriculture.

Funds authorized in section 22 of the Act of June 29, 1935 (49 Stat. 439, as amended; 7 U.S.C. 329), are transferred to and shall be administered by the Secretary of Agriculture. (Section 1417 (c))

Legislative HistoryIntroduction

This appendix reviews Federal Legislation pertaining to instruction in land-grant institutions, of which Bankhead-Jones is an integral part, highlighting the original intent. Under review are the Morrill Act of 1862; the Morrill Act of 1890; the Nelson Amendment of 1907; the Bankhead-Jones Act of 1935 and its 1960 Amendment; Title XIV of the Food and Agriculture Act of 1977; and the pending Education Amendments of 1980 (H.R. 5192). A summary appears in the main body of the report in narrative and chart form.

First Morrill Act

The Morrill Act of July 2, 1862 provided a broad charter for instruction in agriculture and the mechanic arts at land-grant institutions. The impetus came from a variety of interests which were united in their dissatisfaction with the prevailing emphasis upon classical and professional curricula in colleges in the mid-1800's. It came from farmers and those in occupations closely related to agriculture (the two groups together constituting the vast majority of the population), from those who saw changing needs in a society which was rapidly industrializing, and from those seeking advanced education in the basic natural sciences who generally had to go abroad to find it. Jonathan Baldwin Turner of Illinois, who in the early 1850's was urging establishment in each State of what he called an "industrial university" endowed by the sale of Federal lands, said that existing colleges served the needs of only 5 percent of the people and that he wanted a system for advanced education which would meet the needs of the rest.

Justin Smith Morrill of Vermont took up the cause after his election to the House in 1855. After suffering temporary defeat by a Presidential veto of a bill which passed Congress in 1859, he was successful in 1862 with a second bill which was similar to the first, but which added the requirement that each college offer courses in military tactics. To each State, the Act offered grants of land (proportional to the State's representation in Congress) which were to be sold and the proceeds invested. The interest was to be used for the "endowment, support and maintenance" of at least one college designated by the State legislature, where:

the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislature of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life. (Morrill Act of 1862)

In 1887, speaking at the then Massachusetts Agriculture College, now the University of Massachusetts, Mr. Morrill said:

The design (of the land-grant system) was to open the door to a liberal education... at a cheaper cost from being close at hand, and to tempt (students) by offering not only sound literary instruction, but something more applicable to the productive elements of life....

The 1862 Morrill Act required that States accepting the grant invest the fund at a reasonable rate of interest, guarantee its integrity by making up losses, if any, and use the income only at the designated institutions and only for instruction--no buildings could be constructed or repaired out of it.

The broad language, specifying State control over the manner in which the general requirements were carried out, was subject to varying interpretations. At an 1871 meeting in Chicago, called to discuss common problems and attended by a variety of representatives of several of the designated institutions, D.C. Gilman of the Sheffield Scientific School at Yale, then the designated land-grant institution of Connecticut, suggested that Connecticut, and perhaps New England generally, would best be served by emphasis on educating scientists who, through their basic and applied research, would serve important needs of agriculture and industry. Midwestern representatives described already-developed curricula in agriculture, engineering, and home economics, undergirded by basic courses in English, mathematics, and the natural and social sciences. Ezra Cornell, founder of the land-grant university in New York, said he wanted to establish an institution in which "any student could study any subject."

The provision for State determination of the manner in which the broad requirements of the first Morrill Act were to be carried out allowed a response to those who thought that agriculture, as such, was not sufficiently emphasized. Connecticut farm interests, for example, persuaded the legislature to change the land-grant designation from Sheffield School at Yale, which was given a cash compensation, to the Connecticut Agricultural College (now the University of Connecticut); Dartmouth's designation was shifted to what is now the University of New Hampshire; Brown relinquished its designation to what is now the University of Rhode Island; and the University of Mississippi's designation was shifted to Mississippi State University. Farm interests were also a major factor in founding what is now North Carolina State University at Raleigh and shifting the land-grant designation from the University at Chapel Hill.

Three Southern States--Mississippi, South Carolina, and Virginia--divided the original Morrill Act fund between institutions for white and black students. Massachusetts was the only State outside the South to designate more than one land-grant institution at the same time; it divided the endowment between the new Massachusetts Institute of Technology (for the mechanic arts--i.e., engineering) and the Massachusetts Agricultural College.

As time went on, the land-grant institutions developed certain common characteristics. The typical institution offered programs in agriculture and engineering, all offered military training, those outside the South (and several in the South) admitted women and developed courses in home economics. The education of veterinarians became a function of land-grant institutions almost exclusively.

The Morrill Act of 1890

The 1890 Morrill Act supplemented that of 1862 in three important respects:

(1) It provided a permanent annual appropriation of \$25,000 per State--described as a "further endowment"--for instruction in the State-designated land-grant institutions.

(2) By a House amendment prepared to meet questions raised by the National Grange as to the Senate bill, the second Morrill Act stated much more specifically than the 1862 Act--but still in broad terms--the fields of instruction for which the money could be used. These were:

instruction in agriculture, the mechanic arts, the English language and the various branches of mathematical, physical, natural, and economic science, with special reference to their applications in the industries of life, and to the facilities for such instruction. (Morrill Act of 1890)

The term "facilities" refers to instructional equipment.

(3) The 1890 Morrill Act barred use of the funds for the support "of any college where a distinction of race or color is made in the admission of students" but immediately went on to say that "the establishment of such colleges separately for white and colored students shall be held to be a compliance with the provisions of this act if the funds received.... be equitably divided as hereinafter set forth...." The division was left to the State legislatures to determine and to report to the Secretary of the Interior. Institutions designated as a result of this provision enrolled principally black students and became known as "1890 institutions." Those established under the provisions of the first Morrill Act are referred to as "1862 institutions."

In addition, the 1890 bill required acceptance of the Act by State legislatures before payments could be made; it mandated that sums paid by the U.S. Treasury to State treasurers or others designated to receive them must be turned over immediately to the colleges on request of their trustees; and it instituted a requirement of annual reports to the Secretaries of Agriculture and Interior (the latter then the "home" of the U.S. Office of Education, which had administered the Act from the beginning). All institutions receiving funds from the 1890 Act, whether previously established or to be established in the future, were made subject also to the terms of 1862 Act.

The Morrill Act of 1890 culminated a long effort by then Senator Morrill to bring the national endowment of the land-grant institutions up to a figure more in keeping with the growing demands on them. In this effort, he met opposition from those who wished to see the establishment of a "national" university, a movement which died out as individual institutions over the country began to develop strong programs of advanced study and research.

Morrill's 1890 bill passed the Senate, unopposed, by voice vote after approval by the Senate Education and Labor Committee (S. Rept. 1028 on S. 3714, 51st Congress, 1st session) and subsequently was approved by the House Education Committee, with amendments (H. Rept. 2697 on S. 3714). The House report incorporated large sections of the Senate report, among them the following:

The object of this bill is to place the system of colleges for the benefit of agriculture and the mechanic arts, established under the law of July 2, 1892, upon a basis of assured support for all time.

These institutions are now thoroughly established and have already demonstrated that they must be accepted as among the chief agencies through and by which the new practical industrial education of the people is to be accomplished. Although in the popular mind they are intimately associated with the advancement of the fundamental pursuit of agriculture, yet they are equally devoted to diffusion of scientific education as applied to the mechanic arts, and thus they embrace within their jurisdiction the whole field of the practical application of science to the wants and welfare of man.

Perhaps contrary to the general impression, the proper equipment of these colleges is far more expensive, being at least ten times greater than that of an ordinary classical institution....

The passage of this measure, which is introduced by the distinguished father of this system of colleges, will place them upon a safe foundation so long as we are a nation, and link his name with theirs in one common immortality.

Some subsequent studies of the land-grant institutions take the view that the specific list of academic disciplines enumerated in the 1890 Act was a narrowing of scope, compared with the more general "support and maintenance" language of the 1862 Act. However, Dr. Eduward D. Eddy, author of the only comprehensive history of the land-grant movement, takes the opposite view, stating (p. 103) that:

...for the first time provision was made for instruction in some of the arts and all of the sciences. The institutions were to interpret the restriction as an obligation to offer work in the arts and sciences. 1/

The Nelson Amendment (1907)

The Morrill Act of 1890 was subsequently expanded and slightly modified by the Nelson Amendment of 1907. It is commonly referred to as "the Morrill-Nelson Act" and one of the "supplementary" acts to that of 1862.

Separately, the Nelson Amendment of 1907 did two things: (1) it doubled the Federal money going to each State for instructional purposes (to \$50,000 annually) and (2) specified that a portion of the money could be used for "providing courses for the special preparation of instructors for teaching the elements of agriculture and the mechanic arts."

Both the 1890 and 1907 Acts provided for substantial increases in Federal instructional support for the land-grant institutions. It appears this exhibition of national confidence inspired sharply increased State support to these institutions, so that according to Edward D. Eddy's history (p. 153),

At the end of the first decade of the twentieth century, land-grant institutions were receiving approximately one-third of their total income from Federal sources. By 1932 only 10 percent came from the Federal government.

Bankhead-Jones Act of 1935, Title II, Section 22

In 1935, the Congress included in the Bankhead-Jones Act for "the more complete endowment and support of land-grant colleges" a provision which granted an additional \$20,000 to each State for instructional purposes, and an additional amount distributed to each State on the basis of population. In its final form after conference, Section 22 of the 1935 Act authorized to be appropriated annually the following amounts:

1/ Eddy, Edward D. Colleges for Our Land and Time, New York: Harper, 1957.

(a) For the fiscal year beginning after the date of the enactment of this act, and for each fiscal year thereafter, \$980,000; and

(b) For the fiscal year following the first fiscal year for which an appropriation is made in pursuance of paragraph (a) \$500,000, and for each of the two fiscal years thereafter \$500,000 more than the amount authorized to be appropriated for the preceding fiscal year, and for each fiscal year thereafter \$1,500,000. The sums appropriated in pursuance of paragraph (a) shall be paid annually to the several States and the Territory of Hawaii in equal shares. The sums appropriated in pursuance of paragraph (b) shall be in addition to sums appropriated in pursuance of paragraph (a) and shall be allotted and paid annually to each of the several States and the Territory of Hawaii in the proportion which the total population of each such State and the Territory of Hawaii bears to the total population of all the States and the Territory of Hawaii, as determined by the last preceding decennial census. (Section 22, Bankhead-Jones Act of 1935)

Under this formula, Bankhead-Jones authorized \$980,000 in 1936; \$1,480,000 in 1937; \$1,980,000 in 1938; and \$2,480,000 in 1939 and years following.

The formula for allocation of funds under Section 22 differs from that of the Morrill-Nelson Act which appropriates an identical amount to each State. As a 1939 study by the Presidentially named Advisory Committee on Education noted (p. 15), the use of a variable grant based on population in Section 22 of the 1935 Act recognizes a principle of apportionment first incorporated in the original Morrill Act through its provision that endowment funds be proportioned according to representation in Congress, thus taking population into partial account. 2/

Worthy of note is the fact that a portion of the funds authorized for cooperative extension work under Section 21 of the 1935 Act were to be allocated in accordance with "farm" population, while the variable portion under Section 22 was predicated on the basis of total population. During the hearings, Representative Hope of Kansas asked President F. D. Farrell of Kansas State College (now Kansas State University) if the use of "total population" rather than "farm population" as an apportionment basis was "due to the fact that the colleges carry on branches (of learning) other than agriculture." President Farrell replied "Yes."

2/ See Staff Study No. 10, The Land Grant Colleges, by C. A. Works and Barton Morgan, prepared for the Advisory Committee on Education, U.S. Government Printing Office, 1939.

From a study of the hearings, the committee reports, and the text of the 1935 Act, it is clear that the intent was to apply funds authorized and appropriated under Section 22 of the 1935 Act only for instructional purposes and only in the subjects authorized by the Morrill-Nelson Act. Section 22 specifies that "Sums appropriated in pursuance of this section shall be in addition to sums appropriated or authorized" under the first Morrill Act, as amended and supplemented; "and shall be applied only for the purposes of the colleges defined in such Act, as amended and supplemented;" and finally, that "The provisions of law applicable to the use and payment of sums" under the Act of 1890 as amended and supplemented "shall apply to the use and payment of sums appropriated in pursuance of this section."

The descriptive language of the committee reports of both the Senate (S. Rept. 532 on S. 2228, 74th, 1st) and House (H. Rept. 587 on HR 7160, 74th, 1st) is brief in each case with respect to Section 22, presumably because the language of the bill makes it clear that the purposes for which the funds are to be used are identical with those specified in the Morrill Act of 1890 as amended in 1907. During the Senate hearings on S. 2228, March 28 and 29 of 1935, presidents of several land-grant institutions testified to greatly increased enrollments and costs at their institutions since the last Federal support increase. They also noted that State funding, which had increased far out of proportion to Federal funding, was suffering because of the depression. President L.N. Duncan of Alabama Polytechnic Institute (now Auburn University) noted the great increases in offerings and enrollments in agriculture and engineering. Teacher training enrollment at Auburn, he said, had increased 135 percent in the same period. F. D. Farrell of Kansas State said the training at the land-grant institution with funds under the Morrill and Morrill-Nelson Acts "include(s) not only instruction in agriculture...but also instruction in engineering or mechanic arts, in English, and chemistry, mathematics, and other general subjects." President Farrell noted that there had been no Federal increase in teaching support for 28 years, since 1907, during which time the teaching load at Kansas had more than doubled, while it had tripled and quadrupled in some of the other newer States. Due to declining enrollment at the onset of the depression, State funding in Kansas had been cut 28 percent, necessitating a 15 percent cut in faculty. However, enrollment in 1934-35 was increasing substantially (17 percent over the previous year) all over the country, and land-grant institutions were finding it very difficult to keep up.

At the House hearings on March 29, 1935, President T. O. Walton of Texas Agriculture and Mechanical College (now Texas A&M University) stressed the role of the land-grant institutions in education for "agriculture and industry" and for military service, noting that his college had furnished 2,100 commissioned officers to the Nation's armed forces. President Farrell of Kansas repeated this in his Senate testimony and said that in addition to a general 17 percent enrollment increase, agriculture had been up 30 percent and engineering 20 percent over the year before.

1960 Amendment to Title II, Section 22, of the Bankhead-Jones Act of 1935

In 1960, Congress amended the Bankhead-Jones Act of 1935, increasing the uniform grants to each State and Puerto Rico to \$150,000 and increasing the variable sum to \$4,300,000 (from \$1,502,000) for distribution among the States and Puerto Rico. The House-Senate committee report states the "Purpose of the Bill" (p. 1) as follows:

To restore the level of support by the Federal government of teaching in the national system of land-grant colleges and universities to the level authorized by Congress in 1935. These colleges and universities were founded by Federal action and have for nearly a century carried on national functions while under the control and direction of duly established State authorities. The land-grant institutions have received direct Federal appropriations for teaching purposes since the passage of the second Morrill Act of 1890. These funds have not increased since 1935, although there is general agreement among all college and university officials that funds for faculty salaries are the most critical need of our colleges and universities at the present time. What the bill proposes is an increase in these teaching funds simply to bring them up to the same standard, in terms of the formula on which they were appropriated in 1935, as they were 25 years ago. This would still leave the proportion of Federal funds compared to the amount appropriated by the States, far less than it was 25 years ago.

The additional funds authorized by this Bill to be appropriated could be used only for teaching purposes and only in the subjects authorized by the original land-grant college act. (Senate Report 1956 to accompany S.3150 June 16, 1960)

As amended in 1960, Title II of Section 22 of the 1935 Bankhead-Jones Act authorized the following amounts:

- (a) For the first fiscal year beginning after the date of enactment of this Act, and for each year thereafter, \$7,650,000; and
- (b) For the first fiscal year beginning after the date of enactment of this Act, and for each fiscal year thereafter, \$4,300,000.

The sums appropriated in pursuance of paragraph (a) shall be paid annually to the several States and Puerto Rico in equal shares. The sums appropriated in pursuance of paragraph (b) shall be addition to sums appropriated in pursuance of paragraph (a) and shall be allotted and paid annually to each of the several States and Puerto Rico in the proportion to which the total population of each State and Puerto Rico bears to the total population of all the States and Puerto Rico as determined by the last preceding decennial census. (1960 Amendment to Bankhead-Jones Act)

The appropriations increases authorized by the 1960 Amendment were intended to, and did, bring the total Federal funds authorized for resident instruction in the land-grant institutions up by 140 percent over the level of the 1935 Act (combined with those distributed under the Morrill-Nelson Act). The justification was on the basis of a 100 percent inflation and a 40 percent total population increase since 1935. As was pointed out in the committee report, enrollment increases between 1935 and 1960 far exceeded population growth in the period, but the authorization increase was specified in the terms of the original formula.

During Senate consideration of the 1960 Amendment to Section 22 of the 1935 Bankhead-Jones Act, Senator Ellender of Louisiana, Chairman of the Senate Committee on Agriculture and Forestry, made the following statement (Cong. Record, p. 14202, 8th, 2nd) which is explicit as to intent:

Land-grant teaching funds are available for support of instruction in a wide range of basic and applied subjects related to agriculture and engineering. The limitation placed on their use by the statutes is that they be expended for teaching and that this teaching be in "agriculture, the mechanic arts, and subjects related thereto." The interpretation of this language has been broad, as Congress clearly intended it to be, and has permitted support of instruction in the land-grant colleges in accordance with the changing scientific and technical needs of our society. Thus instruction is supported in the basic fields of physical science such as chemistry, physics, and metallurgy, as well as in all the fields of engineering which are based on the application of these subjects. The funds may be used in botany, zoology, bacteriology, and entomology--sciences basic to agriculture, as well as in the applied fields of agriculture itself. They may be used for mathematics, essential in all scientific fields, and for the basic instruction in English. They may also be used for support of the important and growing field of veterinary medicine, so basic both to human and animal health.

As part of the justification for the Amendment, the committee report noted that the land-grant institutions, though constituting fewer than 5 percent of the total number of institutions, enrolled more than 21 percent of all students in 4-year institutions, and awarded more than 80 percent of the bachelor's degrees and 100 percent of the doctor's degrees in agriculture. Land-grant institutions also awarded 56 percent of doctoral degrees in biological science and 39 percent of those in mathematics, the report noted. Furthermore, land-grant institutions awarded 41 percent of all baccalaureates and 53 percent of the doctorates in engineering, 72 percent of forestry degrees, and 90 percent of veterinary degrees. The report also noted that the land-grant institutions conferred 42 percent of all doctoral degrees in all fields, including 36 percent in physics, 40 percent in chemistry, 73 percent in geology, and 95 percent in entomology.

By way of further justification, the committee report gave recognition to the land-grant system in the teaching of military science and tactics. According to the report, the land-grant institutions furnished annually from 50 to 70 percent of all young men receiving commissions via the Reserve Officers Training Corps between World Wars I and II. Furthermore, it attributes to General Marshall the statement that mobilization in World War II would have been delayed at least 6 months without the availability of these men. President Eisenhower, while Chief of Staff of the Army, made a similar observation, the report notes.

Title XIV of the Food and Agriculture Act of 1977

In the process of arriving at the Food and Agriculture Act of 1977, various bills were introduced to amend Section 22 of the Bankhead-Jones Act. However, only the language authorizing the transfer of administration of Section 22 to the Secretary of Agriculture from the U.S. Office of Education survived in the House Bill, as passed, which was subsequently enacted into law. Section 1417 (c) of the Food and Agriculture Act of 1977 states:

Funds authorized in Section 22 of the Act of June 29, 1935 (49 Stat. 439, as amended; 7 U.S.C. 329), are transferred to and shall be administered by the Secretary of Agriculture.

The express purposes of Title XIV include as an objective:

to establish firmly the Department of Agriculture as the lead agency of the Federal government for the food and agricultural sciences, and to emphasize that agricultural research, extension, and teaching are distinct missions of the Department of Agriculture.

Specifying the responsibility for teaching, Subtitle B of Title XIV of the Act, headed "Coordination and Planning of Agricultural Research, Extension, and Teaching," directs the Secretary to keep informed of developments in, and the Nation's need for, research, extension, teaching and manpower development in food and agricultural sciences, and represent such matters in deliberations within the Department, in the executive branch of the United States Government, and with the several States and their designated land-grant colleges and universities, other colleges and universities, agricultural and related industries, and other interested groups. It also instructs the Secretary to:

coordinate all research, extension, and teaching activity conducted or financed by the Department of Agriculture and, to the maximum extent practicable, by other agencies of the executive branch of the U.S. government; (Section 1405c)

and

undertake the coordination of State-Federal cooperative agricultural research, extension, and teaching programs funded in whole or in part by the Department of Agriculture in each State, through the administrative heads of land-grant colleges and universities and the State directors of agricultural experiment stations and cooperative extension services, and other appropriate program administrators.... (Section 1405d)

Currently, the only teaching funds under the supervision of the Department of Agriculture are the Bankhead-Jones funds. 3/ Morrill-Nelson funds, also for instruction, but not mentioned in Title XIV, continue to be administrated by the U.S. Department of Education.

Department of Education Organization Act

The Department of Education Organization Act (P.L. 96-459, sec. 301(a)(2)(E) specifically transfers the authority to administer the second Morrill Act (7 U.S.C. 321-328) from the Secretary of Health, Education, and Welfare to the Secretary of Education. No mention is made of the first Morrill Act. However, it is believed that the Secretary of Education holds that authority as well. 4/ As of May 4, 1980, the Secretary of Education assumed oversight authority with respect to compliance by land-grant colleges with the statutory terms and conditions governing the Bankhead-Jones and Morrill-Nelson grants.

Education Amendments of 1980

The American Samoa Community College would become the 72nd land-grant institution, if the Education Amendments of 1980 (H.R. 5192) are passed. It would receive a one-time Federal endowment of \$3 million, an annual appropriation of \$50,000 under the Morrill-Nelson Act, and annual support under Bankhead-Jones of over \$150,000. The same bill also specifies that any provision of Federal legislation that includes "the operation of or provision of assistance to the land-grant" institutions in Guam or the Virgin Islands shall also apply to the institution(s) in American Samoa.

3/ While Section 1403(4) mentions teaching programs, and paragraph 7 states as a "purpose" the establishment of a new program of competitive grants and fellowships to strengthen training and research programs in the food and agricultural sciences, the competitive grants program has never received funding.

4/ The reasoning for this belief follows. On July 11, 1930, the Secretary of Interior issued a ruling delegating to the Commissioner of Education the authority for determining compliance with the provisions of the Morrill Act of 1862 (see Appendix B, page 39). These responsibilities remained with the Commissioner as the Office of Education was transferred first to the Federal Security Agency and then to the U.S. Department of Health, Education, and Welfare, whereafter it was subsumed under the Education Division. All functions vested in the Commissioner with respect to the Education Division of the Department of Health, Education, and Welfare were vested in the Secretary of Education under the terms of section 301(c) of P.L. 96-88.

APPENDIX D

Rationales for the Continuation or Discontinuation of the Bankhead-Jones and Morrill-Nelson Programs

Introduction

This appendix reports the rationales and justifications used since 1960 in support of, or in opposition to, continued funding of the Bankhead-Jones and Morrill-Nelson programs. In general, during the 1960's the administration and Congress agreed to continue both programs. Since 1971, however, the administration has made repeated attempts to cut Bankhead-Jones funding, with requests for zero-level funding in nine of the 11 years. Congress continued the program each year, though at less than full funding. The budget requests to Congress and appropriations for the programs appear in the main body of this report in Table 5.

By the middle and late seventies, the administration had made several revision requests and attempted to gain legislative support for the repeal of the authorizing legislation. Congress shifted the location of the Bankhead-Jones program in 1977 from the U.S. Department of Health, Education, and Welfare (HEW) to the U.S. Department of Agriculture (USDA) through the Food and Agriculture Bill of 1977 (P.L. 95-113). This placed Bankhead-Jones under the aegis of appropriations committees concerned with agriculture and related matters, while the Morrill-Nelson program, not mentioned in the 1977 bill, remained within the Office of Education (OE) for administrative purposes under the same Congressional auspices as before. In 1979, when the administration again proposed zero-level funding for Bankhead-Jones for fiscal year 1980, Congress directed USDA conduct a review of the program.

Methodology

Annual budget submissions were reviewed for administration policy regarding Bankhead-Jones and Morrill-Nelson. This included Office of Education submissions beginning with fiscal year 1960 and continuing through 1978, and the budget requests of the USDA thereafter. Additional materials pertaining to the positions taken on Bankhead-Jones in the 1980's come from published testimony at Congressional hearings, House and Senate appropriation committee reports, and House-Senate conference reports. These materials are indexed by the Congressional Information Service Abstracts annually. Relevant bibliographic materials and appropriations bills are cited in the funding section of Appendix E.

Budget Justifications for Funding During the 60's

To justify the request for funding Bankhead-Jones and Morrill-Nelson, the OE budget for 1960 spoke of growing expenses on the part of land-grant institutions and the heavy reliance of some on Federal funds:

The land-grant colleges and universities in developing the budgets anticipate this appropriation. Owing to the increasing size of institutional budgets caused largely by increasing enrollments, expanding programs, and inflation, the land-grant colleges are in need of the appropriation. In fact in some of the institutions the operations in some fields of instruction depend very heavily on the funds from the Federal Government. (1960 Budget Justification, U.S. Office of Education)

Other submissions in the 1960's emphasized the benefits derived from Bankhead-Jones support:

Over the past century, the Federal Government's assistance to the land-grant colleges has had a great and beneficial effect upon the accomplishments of the Nation in agriculture and in industry. Moreover, such assistance has brought to an ever larger segment of the population the benefits of higher education. It is altogether desirable that this influence be perpetuated through continuation of the land-grant college aid program at the present level of effectiveness. (1964 Budget Justification, U.S. Office of Education)

The OE budgets for 1965, 1966, and 1967 noted specifically the Nation's reliance upon land-grant institutions for trained manpower.

The land-grant colleges and universities are a distinctive group of higher education institutions established to carry out the purposes of the First-Morrill Act, approved July 2, 1862. They represent the Nation's largest single source of trained and educated manpower and now contribute more than one-half of the Nation's scientists and nearly one-half of all regular and reserve officers entering the Armed Forces through the military programs conducted at civilian institutions. (1965 Budget Justification, U.S. Office of Education)

The OE budgets for 1969 and 1970 assumed a new tone, restrained in nature, depicting Bankhead-Jones as small, but significant.

The amount of this appropriation is small compared with the total income of all land-grant colleges and universities, but it is of considerable importance to the smaller ones. (1970 Budget Justification, U.S. Office of Education)

Proposal to Discontinue Bankhead-Jones

The 1971 OE budget request depicted Bankhead-Jones as "an example of effective Federal-State cooperation in financing higher education." It also proposed to terminate the program.

For fiscal year 1971, no funds are requested under the Bankhead-Jones Act of June 29, 1935. Such funds are a relatively minor source of revenue for these land-grant institutions, which include some of the strongest and most prestigious colleges and universities in the country. However, \$1,850,000 is being set aside under the "developing institutions" program to assist the smaller and poorer land-grant institutions particularly the predominantly Black land-grant institutions in the South. (1971 Budget Justification, U.S. Office of Education)

During testimony in behalf of the administration's position, an Office of Education spokesman reiterated the point that "The Bankhead-Jones Act has been a minor source of funds for most land-grant institutions some of which are among the strongest and most prestigious colleges and universities in the country." Peter Muirhead, then the Associate Commissioner for Higher Education, described Bankhead-Jones as a program with a fine history, but not in line with the "No. 1 priority...to extend equal educational opportunity to as many young people as possible." The question as to how to foster equality of educational opportunity--through individual or institutional grants--runs throughout the legislative history thereafter. Reiterating an earlier pledge, an Office of Education spokesman promised to set aside under the developing institutions program funds to assist those few land-grant institutions which would be hurt seriously by the cut-off. ^{1/}

Countering this testimony, Dr. Wilson Elkins, President of the University of Maryland, appeared on behalf of the National Association of State Universities and Land-grant Colleges. He labeled as grossly inaccurate administration statements calling Bankhead-Jones "outdated," as "a minute source of revenue," and one which be supplanted by the developing institutions program. The proposed reductions in funds were the equivalent of some 1,200 faculty positions and at least 18,000 students, he reported. He said that the developing institutions program, which awards grants on a competitive basis for limited periods of time and specific purposes, is not intended to support the fundamental instructional program of the college on a continuing basis, as are the land-grant funds. Finally, he depicted a cut in funding as falling disproportionately

^{1/} House Hearings on H.R. 16916, March 10, 1970, pp. 463-516. Funding information on the developing institutions program appears as an addendum to this appendix.

upon the incoming freshmen class of fall 1971, since many State legislatures operate on a biennial funding basis and alternative sources of support were not available at this late date. 2/

A similar deposition was made before the Senate Appropriations Subcommittee by David Mullins, President of the University of Arkansas. In those hearings, Senator Magnuson ascertained that the land-grant instructional funds benefit all students in the academic fields supported, not just the disadvantaged, though Dr. Mullins emphasized that the Colleges of Agriculture and Engineering in land-grant institutions enroll numerous disadvantaged students, with many coming from rural areas and small towns. 3/

The House Report agreed with the administration that Bankhead-Jones "funds go to well-established, relatively affluent institutions, and form a very small portion of their annual budgets." The Report went on to say that "The Committee does not disagree with the Administration's objective of eliminating this grant, but has provided \$8,080,000, two-thirds of the appropriation, to permit a gradual phase-out rather than the abrupt termination proposed in the budget." 4/

The Senate Report expressed the viewpoint that "a reduction in this long-established program would create an undue burden on the land-grant colleges which have not had sufficient time to adjust their individual budgets." The committee allowed full funding, at \$12,120,000, with the comment that it "does not condone the administration's attempt to repeal legislative authority in this manner." 5/ The conferees arrived at a figure of \$10,080,000 for fiscal year 1971 Bankhead-Jones appropriations, a decrease of more than \$2 million from the previous year.

1972

The basic lines of discourse were sharpened in 1972. At the House Hearings, John Oswald, President of Pennsylvania State University, representing land-grant institutions, compared the land-grant instructional program with other forms of Federal assistance. "Almost the only Federal program that today helps the colleges and universities keep down their tuition charges to students is the Morrill and Bankhead-Jones program," he noted. "Most of the Federal programs have tended to accelerate this trend toward higher tuition charges, by imposing additional burdens on the colleges and universities through required matching funds, failure

2/ House Hearing on H.R. 16916, March 16, 1970, pp. 1235-1243.

3/ Senate Hearings on H.R. 16916, April 16, 1970, pp. 7-43.

4/ House Report 91-996, to accompany H.R. 16916, April 9, 1970, p. 8.

5/ Senate Report 91-871, to accompany H.R. 16916, May 15, 1980, p. 10.

of the Federal agencies to pay full cost to the universities for the programs supported, and the like." As a consequence, President Oswald said "if the trend (of rapidly rising tuition and fee charges) continues, students from middle-class families will be squeezed out, leaving only the sons and daughters of the very rich and the very poor who are aided through scholarships, work-study programs, and low-interest loans." 6/

At the Senate Hearings, the position taken by the Department of Health, Education, and Welfare was this:

The House bill (for fiscal year 1972) includes \$5 million for this program, exactly one-half of the 1971 level. The House, while recognizing this to be an outmoded program, would phase it out rather than eliminate it in 1972. We would accept this phase-out approach since it will eventually result in the discontinuation of this program. (Senate Hearings on H.R. 7016, April 29, 1972, p. 741)

Senator Cotton asked whether the Department wanted to discontinue assistance to the land-grant institutions other than the black (1890) institutions. Secretary Elliot Richardson replied:

It isn't really a trade-off, Senator Cotton, as we visualize it. It is a reflection, rather, of the feeling that the land-grant colleges program is a sort of historic vestige of an era when it was the only vehicle for Federal support of higher education; that it isn't an appropriate channel through which to develop a new approach to institutional aid; and that since the money goes only to one type of institution, we ought to phase that program out while emphasizing forms of support for higher education that are broader in their impact. (Ibid., p. 794)

Secretary Richardson later added:

Does it make sense to continue a program that reaches only the colleges and universities that were historically classified as land-grant colleges, or should we rather be seeking to develop new forms of assistance that can be applied more broadly among institutions of higher education? (Ibid., pp. 795-96)

6/ House Hearings on H.R. 7016, March 11, 1971, p. 369.

Senator Magnuson stated his disagreement with the notion that the appropriations committee should assume the responsibility for phasing out a legislated program:

...if you don't like the law or the administration doesn't, why don't they come up and ask to repeal the law, not to repeal it by asking for no money and making the program ineffective? (Ibid., p. 796)

Funding for 1972 was set at \$10 million, which was \$80,000 less than the previous year.

1973-1975

These positions remained unchanged during the following two years, and funding remained approximately constant. For fiscal year 1973, zero-level funding was requested for Bankhead-Jones, no justification was presented in the OE budget submission, and the legislative record shows no testimony on the land-grant instructional programs. For fiscal year 1974, the budget hearings were the occasion for restating basic positions. OE altered its stance on support for 1890 institutions through the developing institutions program from one of promise to that of continuing support. Finally, the administration requested a revision of the 1973 funds appropriated for Bankhead-Jones, which Congress denied.

By the early 1970's the Office of Education had undertaken several programs of individual student assistance which today amount to many billions of dollars of Federal assistance annually. This shift in emphasis from institutional to student support was underscored in the 1975 submission, as follows:

Institution assistance is decreased...as a consequence of proposing a shift to student assistance designed to further equal education and opportunity (sic). (1975 Budget Justification, U.S. Office of Education)

In the budget hearings for fiscal year 1975, the administration unveiled a plan to repeal the land-grant legislation for resident instructional support. Also data were introduced comparing the amount of support received by land-grant institutions from Bankhead-Jones and Morrill-Nelson with their current operating expenditures. Congressman Flood initiated the questioning as follows:

This budget again proposes to phase out the land-grant college assistance.... Do you have any new evidence to support your proposals this time? (House Hearings on the Departments of Labor and Health, Education, and Welfare Appropriations for 1975, p. 498)

Peter Muirhead, representing the Office of Education, replied:

As you have pointed out to us many times, Mr. Chairman, when we have come before you seeking to phase out the land-grant college programs, you have pointed out 'Why don't you ask the Congress to repeal the land-grant legislation?' We have now picked up enough courage to do that, and we have made such a proposal to the Congress. (Ibid.)

Congressman Michel expressed agreement with the administration's position, adding "we must have some good solid information here upon which to build a case." He suggested trend data on enrollment at land-grant institutions and their operating expenditures. The Office of Education furnished for the record 1970 data on Federal land-grant instructional funds as a percentage of institutional operating expenditures. On the average, Bankhead-Jones and Morrill-Nelson combined represented 0.3 percent of the total operating expenditures at land-grant institutions in 1970. ^{7/} With no headway on the proposed legislation to repeal the land-grant legislation, the authorization for fiscal year 1975 remained at the 1974 level. A subsequent revision request of 1975 funding was denied.

1976-1978

For fiscal year 1976, no funds were requested for Bankhead-Jones. Also, the original budget submission included no funds for Morrill-Nelson, although subsequently the request was modified to full funding. Congress appropriated the same amount as for 1975 and later denied a revision request.

In the following year, the administration requested funds for neither program. Senate budget hearings on higher education included testimony from several public witnesses, among them Charles Saunders Jr. of the American Council of Education, and Miles Mark Fisher IV of the National Association for Equal Opportunity in Higher Education. Mr. Saunders asked for the maximum authorization for land-grant instructional programs, stating:

Bankhead-Jones funds are among the most useful its recipients receive, because they provide general support without strings. The Administration says it is inequitable that only land-grant institutions have such assistance. We agree, and believe it should be extended to all postsecondary institutions by funding Cost-of-education payments. (Senate Hearings on H.R. 14232, p. 5937)

^{7/} Ibid., pp. 500-506.

Mr. Fisher reported a resolution of the National Association for Equal Opportunity in Higher Education's Board and General Body, expressing their sentiment against the termination of Bankhead-Jones funds. In addition he stated:

If these funds are cut off, they most likely cannot be made up without an appropriation from the Senate legislature, increased tuition to students, or the dismissing of professors and staff. None of these options appear to be viable at this time. No other program monies can be substituted for these funds.

(Ibid., p. 6009)

Funding for Bankhead-Jones in fiscal year 1977 was increased to \$11.5 million, up \$2 million from the previous year, while Morrill-Nelson appropriations were \$2.7 million. Funding for both programs continued at the same level in fiscal year 1978 through a continuing resolution. 1978 was the first time in seven years that the administration requested funding for Bankhead-Jones, which was done that year by amending the original budget request.

1979 - Present

For 1979, the budget submission of the U.S. Department of Agriculture (USDA) included in it for the first time the Bankhead-Jones program with a request for funding at the 1978 level. And for the first time Bankhead-Jones came before the House and Senate Appropriations Subcommittees on Agriculture, Rural Development and Related Agencies. USDA gave this rationale:

Basically, these amounts are made available to strengthen programs of training and research in food and agricultural sciences at the undergraduate, graduate, and post-doctoral levels conducted at these schools. (1979 Budget, Explanatory Notes, Science and Education Administration)

With USDA requesting no funds for other higher education programs, the testimony centered on the Department's general responsibility for higher education recently legislated by the Food and Agriculture Bill of 1977. One witness expressed the concern of the higher education community this way:

The Department of Health, Education, and Welfare has been implicitly advised by PL 95-113 to turn over its responsibilities for education of youth in agriculture to the USDA. The academic community stands a good chance of having support for programs in agriculture fall in the cracks with the proposed budget. (House Hearings on H.R. 4387, p. 251)

Witnesses commented upon the national and international significance of food and nutrition, and the need for the continuation of scientific discovery and technological development in the production of food and fiber. Bankhead-Jones and Morrill-Nelson were funded at the 1978 level.

For fiscal year 1980, however, the Department of Agriculture did not request funding for Bankhead-Jones. The explanation follows:

Need for Change. Section 1417 (c) of the Food and Agriculture Act of 1977 authorized the transfer of these funds in FY-78 from HEW to the Department of Agriculture for administration. Under the broad and permissive language of section 22, Bankhead-Jones Act to provide funds to the land-grant colleges "for support of agriculture, the mechanic arts and related fields" approximately 82% of these funds have been used to support educational programs in english, economics, chemistry, and biology (*sic*). Therefore, most of the funds do not go for direct support of agricultural education. Because of the relative insignificance of these funds, approximately \$200,000 per state, compared to the total provided the land-grant institutions by state appropriations, the Department is proposing to eliminate the distribution of funds under this authorization. These funds would be used to support other high priority programs of the Department.

Nature of Change. The program will be terminated.
(1980 Budget, Explanatory Notes, Science and Education Administration)

Testimony at the House Hearings for fiscal year 1980 funding focused upon the level of support given to agricultural education. Noting that 82 percent of the funds were used to support instruction in subjects other than basic agricultural specialties, Congressman Whitten asked:

Is that the fault of the program or a fault of your regulations? Could not regulations have been developed which would have prevented this? (House Hearings on H.R. 4387, Part 6, p. 714)

The spokesman for the Department of Agriculture, Anson Bertrand, Director of Science and Education, replied:

The legislative statute under which this program has been operated clearly states that the program objective is to enhance the teaching of agriculture and the mechanic arts. ...The legislation relating to this matter is tightly written and does not allow any discretion on the part of the Secretary of Agriculture in determining how the money is to be spent. It is not possible, therefore, to develop regulations which would target the money to specific agricultural programs. (Ibid).

The House appropriations committee voted to fund Bankhead-Jones at \$11,500,000.

The Senate, by contrast, provided \$3 million for Bankhead-Jones grants, earmarked exclusively for agricultural education, with the notation that "Funds in the (Senate version of the appropriation) bill exceed amounts actually utilized for agricultural education in 1979." Taking cognizance of the 18 percent figure (100% - 82%), the Senate Committee further instructed as follows:

The Committee directs that the funds provided be distributed in such a manner that there is no decrease in the amount provided to any land-grant university for direct support of agricultural education. Funds available beyond what is required to meet those needs shall be distributed in the traditional manner and shall be used only for the support of agricultural education. (Senate Report 96-246, to accompany H.R. 4387, p. 40)

The House-Senate conference restored the funds to the level set by the House, with the following notation:

The conferees will expect that, to the maximum extent possible, these grants will be used only in support of agricultural education as discussed in the Senate report. (Conference Report 96-553, to accompany H.R. 4387, p. 16)

At the same time the House and Senate conferees directed the Department of Agriculture to conduct a detailed review of the Bankhead-Jones program. (Appendix A).

Pursuant to the above directive, the Department communicated the conferees' expectations to State treasurers and the chief executive officers of land-grant institutions. The letter to the States read as follows:

It should be emphasized that the Conference Report on the Department's Appropriations Act for fiscal year 1980 states that the Conferees expect that the Bankhead-Jones funds, to the maximum extent possible, be used only in support of agricultural education. I strongly urge each State to adopt measures to insure that the intent of the Conferees is met in the use of these funds.

(Letter dated January 31, 1980 to State treasurers sent by Dr. Anson R. Bertrand, Director, Science and Education)

In a similar letter to the chief executive officers of land-grant institutions, Dr. Bertrand advised "if your state statutes are such that the Bankhead-Jones funds can be reflected in the agriculture budget, we would encourage you to make this internal shift." Subsequent to the receipt of this guidance, several institutions have initiated plans for directing all future appropriations to instruction in agriculture. ^{8/}

Addendum on Support Received from the Developing Institutions Program

Throughout the 1970's, continual reference was made to the provision of support to 1890 institutions from the Title III program on developing institutions in the Office of Education. The table below summarizes the level of support received by 1890 and 1862 land-grant institutions.

According to the program data, land-grant institutions received from \$3.9 million to \$14.4 million in support during the seventies. In the last 2 years for which program data are available, 1978 and 1979, support declined below the levels received during the 5 previous years. Land-grant institutions usually received more than 10 percent of the total funding under the developing institutions program. However, for the last 2 fiscal years for which data are available, the percentage ranged from 6 to 5 percent.

The 1890 institutions received the bulk of the awards going to land-grant institutions during each of the years under study. However, since 1976, the 1890 institutions' share of awards to land-grant institutions has decreased each year. As of 1979, six 1890 institutions receive approximately three-fourths of the total support going to land-grant institutions, the remainder going to five 1862 institutions. As in years past, the 1890 institutions receiving grants in 1979 obtained larger awards on the average than the 1862 recipients.

^{8/} Communication from the Office of Higher Education, Science and Education Administration.

Table D-1

Support received from developing institutions program, by land-grant status, and percentage of total developing institutions funds received by land-grant institutions, fiscal years 1971 - 1979

(Dollars in thousands)

| Fiscal year | Support received from developing institution program* | | | Percent of developing institutions funds going to land-grant institutions |
|-------------|---|-------------------|-------------------|---|
| | All land-grant institutions | 1890 institutions | 1862 institutions | |
| 1970 | \$ 3,854 (19) | \$ 3,619 (16) | \$ 236 (3) | 13 |
| 1971 | 4,081 (17) | 3,965 (16) | 116 (1) | 12 |
| 1972 | 6,073 (17) | 5,893 (16) | 179 (1) | 12 |
| 1973 | 8,351 (17) | 8,183 (16) | 168 (1) | 10 |
| 1974 | 14,438 (16) | 14,172 (15) | 266 (1) | 14 |
| 1975 | 8,116 (12) | 7,846 (11) | 270 (1) | 7 |
| 1976 | 13,276 (13) | 12,826 (11) | 450 (2) | 12 |
| 1977 | 12,194 (11) | 11,704 (9) | 490 (2) | 11 |
| 1978 | 7,491 (11) | 6,282 (7) | 664 (4) | 6 |
| 1979 | 6,445 (11) | 4,642 (6) | 1,803 (5) | 5 |

* The number of institutions receiving support is shown in parentheses.

NOTE: Excludes grants for fiscal years 1970-1976 to the District of Columbia Teachers College and Washington Technical Institute, which merged in August 1977 with the District of Columbia land-grant (1862) institution, Federal City College, to become the University of the District of Columbia.

SOURCE: Unpublished program data, U.S. Office of Education.

APPENDIX E

Bibliography For Legislative and Funding History

Secondary Materials

Books

Carriel, Mary Turner. The Life of Jonathan Baldwin Turner. Urbana: University of Illinois Press, 1961.

Eddy, Eduward Danforth, Jr. Colleges For Our Land and Time: The Land-Grant Idea in American Education. New York: Harper, 1956-57.

O'Hara, William T. John F. Kennedy on Education. New York: Teachers College Press, Columbia University, 1966.

Hatch, Richard A. An Early View of the Land-Grant Colleges. Urbana: University of Illinois Press, 1977.

Klein, A.J. Survey of Land-Grant Colleges and Universities. Bulletin No. 9, U.S. Dept. of Interior, Bureau of Education, 2 volumes, 1,010 pages, Washington, D.C.: U.S. Government Printing Office, 1930.

National Association of State Universities and Land-Grant Colleges. Proceedings, Washington, D.C. Offices.

Parker, William Belmont. The Life and Public Service of Justin Smith Morrill. Boston: Houghton-Mifflin, 1924.

Ross, Earle D. Democracy's College: The Land-Grant Movement in the Formative Stage. Iowa State College Press, 1942.

True, Alfred Charles. A History of Agriculture Education in the United States. Misc. Pub. No. 36, U.S. Department of Agriculture, Washington, D.C.: U.S. Government Printing Office, July 1969.

Works, George A. and Barton Morgan. The Land-Grant Colleges. Staff Study No. 10, Advisory Committee on Education, Washington, D.C.: U.S. Government Printing Office, 1939.

Pamphlets, Articles, and Monographs

Brunner, Henry S. Land-Grant Colleges and Universities, 1862-1962. OE-50030, Bulletin Nc. 13, 1962.

Land-Grant Association. The Spirit of the Land-Grant Institutions. 1962.

Land-Grant Centennial Convocation. Charting the Second Century Under the Land-Grant Tradition. Cornell University, June 14-15, 1962.

Office of Education. Statistics of Land-Grant Colleges and Universities.

Potter, A.A. "Contributions of the Land-Grant Colleges Engineering Experiment Stations." Engineering Experiment Station Record, Series 27, No. 4.

Thackrey, Russell I. "Senator Morrill's Baby." American Education, U.S. Office of Education, Aug.-Sept., 1974.

Primary Materials

Congressional Intent Regarding the Morrill Acts

Second Morrill Act, Committee Reports, Debates, etc.

Text of the Senate Committee Report (No. 1028) on S. 3714, 51st, 1st, on pages 6087-9, Congressional Record, 51st., 1st. Most of the Senate Report is reprinted in the House Committee Report (H. Rpt. 2097 on S. 3714, 51st, July 12, 1890). The House report is in Volume 2814 of the bound volumes of committee reports in the Library of Congress.

Senate debate on the 1890 Bill.

House debate on the 1890 Bill.

Title II, Section 22, Bankhead-Jones Act of 1935

The House Committee Report (No. 587 on H.R. 7160, 74th, 1st, April 4, 1935).

The Senate Committee Report (No. 532, on S. 2228, April 18, 1935, 74th, 1st).

The Senate Hearings on S. 2228, 74th, 1st, and the House Hearings on H.R. 6123 and H.R. 6191 (later consolidated into and superseded by H.R. 7160).

1960 Amendment to Title II, Section 22, Bankhead-Jones Act of 1935

Congressional Record, Senate, 86th, 2nd, see pp. 14201 and following.

Agricultural Act of 1977, Title XIV

Text of the 1977 Act, the hearings at which testimony particularly relevant to what later became Title XIV of the 1977 Act were held by a subcommittee of the full House committee, bills as introduced and modified in subsequent introductions, Senate and House committee reports, etc., were reviewed.

Funding

Each fiscal year the U.S. Office of Education prepares a document on its budget requests and rationale entitled Justifications of Appropriation Estimates for Committees on Appropriations. The same kind of document is prepared annually by the Science and Education Administration of the U.S. Department of Agriculture, entitled (year) Budget: Explanatory Notes. Annual appropriations for Section 22 of the Bankhead-Jones Act of 1935, as amended, are available for 1936 through 1962 in Bulletin 1962, No. 10, U.S. Office of Education, Department of Health, Education and Welfare, Table 1.

For additional documentation of the funding history of Bankhead-Jones since 1970, the following materials were searched: the published proceedings of Congressional hearings, House and Senate appropriations committee reports, House-Senate conference reports, and the President's veto messages. There are indexed by the Congressional Information Service Abstracts annually. Listed below, for each fiscal year, is the identifying information of the relevant appropriations bill.

| <u>Fiscal year</u> | <u>Title of legislative action</u> | <u>Other identifying information</u> |
|--------------------|--|---|
| 1971 | Office of Education Appropriations Act, FY 1971 | H.R. 16916 PL 91-380 Aug. 18, 1970 |
| 1972 | Office of Education and Related Agencies Appropriations Act, FY 1972 | H.R. 7016 PL 92-48 July 9, 1971 |
| 1973 | Continuing Appropriations FY 1973 | H.J. Res. 1234 PL 92-334 July 1, 1972 |
| 1974 | Department of Labor and Health, Education, and Welfare Appropriations Act, FY 1974 | H.R. 8877 PL 93-192 Dec. 18, 1973 |
| 1975 | Departments of Labor, and Health, Education, and Welfare Appropriations Act, FY 1975 | H.R. 15580 PL 93-517 Dec. 7, 1974 |

| | | |
|------|--|--|
| 1976 | Education Division and Related Agencies Appropriations Act, FY 1976 | H.R. 5901 PL 94-94 Sept. 10, 1975 |
| 1977 | Departments of Labor, and Health, Education, and Welfare Appropriations Act, FY 1977 | H.R. 14232 PL 94-439 Sept. 30, 1976 |
| 1978 | Continuing Appropriations, FY 1978 | H.J. Res. 662 PL 95-205 Dec. 9, 1977 |
| 1979 | Agriculture, Rural Development, and Related Agencies Appropriations, FY 1979 | H.R. 13125 PL 95-448 Oct. 11, 1978 |
| 1980 | Agriculture, Rural Development, and Related Agencies Appropriations, FY 1980 | H.R. 4387 PL 96-108 Nov. 9, 1979 |

APPENDIX F



DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20250

NOV 21 1979

Dr. Robert L. Clodius
President, National Association of State
Universities and Land-Grant Colleges
One Dupont Circle, Suite 710
Washington, D. C. 20026

Dear Dr. Clodius:

As you know, the U.S. Department of Agriculture has received a directive from Congress "to conduct a detailed review of the Bankhead-Jones program including the original intent of the legislation and report the findings to the appropriate committees of Congress by March 1, 1980." USDA is to carry out the directive in cooperation with non-governmental representatives. It is my understanding that NASULGC has shown a willingness to participate in this endeavor. This is a follow-up letter to formalize plans which are in the process of being implemented.

A committee of non-governmental representatives from land-grant and nonland-grant colleges, representatives from the USDA, and others will be formed to provide a broad spectrum of viewpoints and to represent the relevant constituencies throughout the study. If you could recommend approximately nine people within your Association who would be appropriate for this committee, it would be most helpful. If these individuals could represent the presidents, deans, and administrators of resident instruction in agriculture, all areas would be covered. The Joint Planning and Evaluation Staff within the Science and Education Administration has assembled a group of people both from within our Department and from your Association which will be responsible for carrying out the designated activities, including writing the report for Congress.

The first meetings of the committee have been scheduled as a breakfast meeting from 7:00AM - 8:30AM in the Lanai III Room and a work session from 1:00PM - 3:00PM in the Richmond Room on Wednesday, November 28 at the Sheraton Washington. I have made plans to meet with the group at the breakfast meeting.

Sincerely,

Signed

ANSON R. BERTRAND
Director
Science and Education

cc: James Nielson
John M. Brazzel

APPENDIX G

Participants at November 28, 1979 Meeting

Individuals Invited by NASULGC at the Request of USDA

| | |
|--------------------|--|
| Robert W. MacVicar | President, Oregon State University and Chairman of the Ad Hoc Committee |
| Robert Barlow | Assistant to President, Cornell University |
| James Beattie | Dean, Pennsylvania State University |
| William F. Bennett | Associate Dean, Texas Tech University |
| William Erskine | Vice President, University of Nebraska |
| David Gardner | President, University of Utah |
| Ed Glazener | Associate Dean, North Carolina State University |
| J. Robert Harrison | Treasurer, University of Delaware |
| Rudy Hilst | Associate Dean, Purdue University |
| Laurel Loftsguard | President, North Dakota State University |
| James Martin | Dean, University of Arkansas |
| Richard Merritt | Dean, Rutgers University |
| Roger Mitchell | Dean, Kansas State University |
| Freddie Richards | Dean, Prairie View A & M University |
| George Sledge | Associate Dean, University of Wisconsin |
| Al Thomas | President, Prairie View A & M |

Individuals Invited by USDA

| | |
|--------------|---|
| Molly Frantz | Budget Examiner, Office of Management & Budget |
|--------------|---|

NASULGC Staff

| | |
|-------------------|--|
| Chris Arnold | Associate for Programs |
| Rodney Bertramson | Consultant on Bankhead-Jones Study |
| Leonard Haynes | Director, Office for Advancement of Public Negro Colleges |
| Garvin Hudgins | Director of the Office of Communications Services |
| Russell McGregor | Director, Office of Governmental Relations for Agriculture and Sciences |
| Eva Procopio | Executive Secretary |

USDA Staff

| | |
|----------------|--|
| Anson Bertrand | Director, Science and Education |
| Homer Folks | Assistant Director for Higher Education, SEA |
| Jane Roth | Program Analyst, Evaluation & Impact Staff JPE/SEA (Study Leader) |

NATIONAL ASSOCIATION
OF STATE UNIVERSITIES
AND LAND-GRANT COLLEGES

APPENDIX H

One Dupont Circle, Washington, D. C. 20036 202 293-7120

December 31, 1979

Name
Address
State

Dear :

As you know we have been cooperating with the U.S. Department of Agriculture in a study requested by the Congress on the Bankhead-Jones Program. That study has been underway with a mailed questionnaire, interviews with a sample of administrators and a survey of the legislative history.

On January 11, we have scheduled a committee meeting to review a draft of our report to Congress. It will begin at 9:00AM and will continue until 5:00PM. We will meet in the Kellogg Room on the 8th floor at the Association's offices, One Dupont Circle, Washington, D.C. I have enclosed a number of documents in order to provide you with some background about the Bankhead-Jones study.

I hope that you will be able to attend, but if you can not, please call Dr. Russ McGregor of Eva Procopio at (202) 293-7120 so that we may plan accordingly. Please call Dr. Jane Roth at (202) 447-2255 if you have any questions about the status of Bankhead-Jones study at this time.

Sincerely,

Robert L. Clodius
President

Attachments:

List of People Invited to Jan. 11 Meeting
Congressional Directive
Survey of Bankhead-Jones Program
Table of Contents
Federal Laws and Rulings



DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20250

APPENDIX H

December 21, 1979

Dr. Constantine Curris
President
Murray State University
Murray, Kentucky 42071

Dear Dr. Curris:

Congress has directed, in the recent House-Senate Conference Appropriations Committee report, that "the Department along with appropriate nongovernmental representatives...conduct a detailed review of the Bankhead-Jones program, including the original intent of the legislation, and report the findings to the appropriate committees of Congress by March 1, 1980."

We are forming an ad hoc committee of non-governmental representatives from land-grant and nonland-grant universities, representatives from the USDA, and others to provide a broad spectrum of comments and suggestions about the soon-to-be-completed study of the Bankhead-Jones program. I understand that Mike Brazzel, Chief of the Evaluation and Impact Staff, has contacted you and that you will be able to participate with us as a member of the committee.

We have already made progress on the study, though a considerable amount of work remains if we are to meet our January 15, 1980 deadline for submission of the report for review by the Department and the Office of Management and Budget. A questionnaire was mailed, with the assistance of NASULGC, on December 5 to all land-grant institutions with a request that it be returned by December 21; an interview protocol has been designed and telephone interviews are being conducted with administrators at a sample of institutions; a legislative history is being written; and various other activities have been started.

The ad hoc committee is scheduled to meet on January 11, 1980 to review the draft of our report to Congress. The meeting will begin at 9:00AM and will continue until 5:00PM and will be in the Kellogg Room on the 8th floor at One Dupont Circle, Washington, D.C. Information about the Bankhead-Jones Study is enclosed.

Dr. Constantine Curris

2

If you need additional information about the study, please call Dr. Jane Roth, the Study Leader, at (202) 447-2255 or 447-5211.

Sincerely,

/s/Anson R. Bertrand

ANSON R. BERTRAND
Director
Science and Education

Enclosures

APPENDIX I

Participants at January 11, 1980 Meeting

Individuals Invited by NASULGC at the Request of USDA

| | |
|--------------------|---|
| Robert W. MacVicar | President, Oregon State University and Chairman of Ad Hoc Committee |
| Robert Barlow | Assistant to President, Cornell University |
| Robert S. Bond | Director, School of Forestry, Pennsylvania State University |
| Edward W. Glazener | Associate Dean & Director, North Carolina State University |
| J. Robert Harrison | Treasurer, University of Delaware |
| William H. Kelly | Associate Dean for Instruction, University of Vermont |
| Kenneth L. Larson | Associate Dean & Director of Resource Institute, University of Missouri |
| B. D. Mayberry | Economist, OBPE, United States Agriculture Department |
| Freddie Richards | Dean of Agriculture, Prairie View A & M |
| George W. Sledge | Associate Dean and Director, University of Wisconsin |
| Burleigh C. Webb | Dean of School of Agriculture, North Carolina A&T State University |
| Louis Wise | Mississippi President for Agriculture, Mississippi State University |

Individuals Invited by USDA

Invitees

| | |
|-----------------------|--|
| Constantine W. Curris | President, Murray State University |
| Molly Frantz | Office of Management and Budget |
| T. J. Stanly | Chairman, Stephen F. Austin State University |

NASULGC Staff

| | |
|-------------------|---|
| Rodney Bertramson | Consultant on Bankhead-Jones Study |
| Russell McGregor | Director of Governmental Relations for Energy and Natural Resources |
| Eva Procopio | Executive Secretary, USDA |

USDA Staff

| | |
|-----------------|---|
| Joel Aronson | Consultant on Bankhead-Jones Study |
| Tim Blosser | Program Coordinator, Joint Planning and Evaluation, SEA |
| John M. Brazzel | Chief, Evaluation & Impact Staff, JPE, SEA |
| Homer Folks | Assistant Director for Higher Education, SEA |
| Lynn Maish | Economist, OBPE |
| John A. Michael | Program Analyst, SEA |
| Jane Roth | Program Analyst and Project Leader, SEA |
| Ted Tschudy | Management Analyst, SEA |

APPENDIX J

Mail Survey Methodology

Purpose of Mail Survey

To gather detailed information on how Bankhead-Jones and Morrill-Nelson funds were used during 1978-79, a mail questionnaire was sent to the chief executive officer of all land-grant institutions. The questionnaire (Appendix M) asked how Bankhead-Jones and Morrill-Nelson funds were distributed by institution, areas of instruction, and programmatic activities; how the funds compared to both instructional costs and revenues, including those with a comparable degree of flexibility; and how student enrollment varied since 1973 in certain areas of instruction.

Sponsorship

The survey was conducted by the National Association of State Universities and Land-Grant Colleges, in cooperation with the U.S. Department of Agriculture.

Measures of Field of Instruction

The questionnaire used two taxonomies for field of instruction to determine which fields received support from Bankhead-Jones and Morrill-Nelson funds:

(1) The classification of fields used in the "Report of the Treasurer: Land-Grant and Supplementary Morrill Funds," Office of Education (OE) Form 1275. Land-grant institutions complete this form annually to report expenditures for salaries and facilities in the following fields: agriculture, mechanic arts, English language, mathematical science, natural and physical sciences, economic sciences, and special preparation of teachers. The form, attached to the mail questionnaire (Appendix M), defines each instructional area.

(2) The classification of fields used by the Higher Education General Information Survey (HEGIS) in its annual survey of degrees awarded. This taxonomy encompasses all major fields of instruction in higher education, including engineering and agriculture, and discipline specialties within (e.g. agronomy, soils science, forestry). The typology is presented by Robert A. Huff and Marjorie O. Chandler, A Taxonomy of Instructional Programs in Higher Education, Washington, D.C.: National Center for Education Statistics, U.S. Department of Health, Education, and Welfare, 1970.

While planning the mail survey, the relative merits of both taxonomies were assessed and, for the reasons stated below, both were used. First, since land-grant institutions routinely report expenditures of Bankhead-Jones funds using the OE subject-matter fields, presumably most institutions would maintain an accounting system with that capability. Second, the use of this measure would allow a study of trends in support.

However, the definitions of fields on the OE form are incomplete and do not always reflect current academic subdivisions of knowledge and training. Moreover, the reported results could not be aggregated to determine how much funding was received by those academic disciplines often associated with agriculture. These include the biological sciences, veterinary medicine, home economics, and landscape architecture. In these respects the HEGIS taxonomy is superior. Moreover, inasmuch as institutions annually report on degrees conferred and other matters related to academic disciplines using the HEGIS taxonomy, many might have incorporated the taxonomy into their accounting system. Accordingly, this typology was also used in the mail survey. ^{1/}

Data Collection Activities

Prior to mailing, the questionnaire was reviewed by a nongovernmental committee, which included many officials affiliated with land-grant institutions, at a meeting held November 28, 1979 (Appendices F and G). After revision, the instrument was forwarded to each land-grant institution on December 5, 1979 accompanied by a letter from the President of the National Association of State Universities and Land-Grant Colleges. The letter explained the purpose of the questionnaire and underscored the importance of participation in the survey. The letter also stipulated that responses to the questionnaire are not confidential: institutions were advised "Please be certain that these answers reflect the university's position."

Responses were received from 60 of 71 institutions in time for inclusion in the analysis (Appendix L). ^{2/} Responses from three other institutions were received thereafter. The aggregate results appear in Appendix M.

Institutions which did not respond to the mail survey were telephoned for their report on the amount of Bankhead-Jones and Morrill-Nelson funds received during fiscal year 1979. In a few instances, no amount was readily ascertainable, in which case an amount was imputed based on the 1979 Federal appropriations and, where relevant, the report of the other land-grant institution located in the same State.

1/ The mail survey checked the assumptions regarding reporting capabilities by ascertaining whether the institution's accounting system could provide a breakdown of Bankhead-Jones and Morrill-Nelson funds by the HEGIS and OE categories (Questions 4a and 6a). Of the 63 institutions returning a questionnaire, 24 answered affirmatively in the case of the HEGIS, 30 in the case of the OE categories.

2/ One institution reported both for its 1862 and 1890 campuses. The Bankhead-Jones and Morrill-Nelson funds were reported separately, while all other information was combined. In computing the response rate, this has been counted as two institutions. However, in Appendix M this counts as one institution. Hence the total of 59 institutions for many questions in Appendix M.

Validation of Reports on Bankhead-Jones and Morrill-Nelson Funds

When questionnaires were received, validation checks were made concerning the amount of Bankhead-Jones and Morrill-Nelson funds reported. In most instances the amount reported by institutions corresponded with the amount reported for fiscal year 1979 in the 1980 budget of the U.S. Department of Agriculture, as expected. Discrepancies mostly under \$1,000 arose in several instances, usually due to rounding on an institution's part, and in those instances the correct (official) amount has been shown in Table 1 of this report. Also, the amount of Morrill-Nelson funds was edited to total \$50,000 per State, leaving any discrepancy to appear in the Bankhead-Jones figures.

There are three different sums shown in this report for Bankhead-Jones and Morrill-Nelson funds. They are as follows:

| | <u>Bankhead-Jones</u> | <u>Morrill-Nelson</u> |
|---|-----------------------|-----------------------|
| (1) total Federal appropriations, 1978-79 | \$11,500,000 | \$2,700,000 |
| (2) total amount reported by institutions, edited and augmented for non- respondents | 11,500,312 | 2,699,779 |
| (3) total amount reported by institutions, not edited or augmented for non- respondents | 9,825,585 | 2,299,000 |

The first amount is the correct one. In the case of Bankhead-Jones, this sum is broken down by State in Table 1. In the case of Morrill-Nelson, each eligible jurisdiction received \$50,000.

The second set of figures, nearly identical to the first, appears in Table 2, broken down by institution. Tables 9 through 15 are based on this set of figures.

The third amount is considerably smaller, principally because it does not include monies for those institutions not participating in the mail survey. This set of figures serves as the basis for the remaining computations and tables in the text and Appendix M.

Representativeness of the Survey Data

This section assesses whether the data from the mail survey may be used to describe conditions prevailing in all land-grant institutions. The method of assessment is a comparison of responding and nonresponding institutions on selected characteristics.

First, an examination of the size of institutions. Five out of the eight nonparticipants enrolled fewer than 10,000 students on a full-time-equivalent basis in fall 1978, as did two of the three institutions whose questionnaires arrived too late for computer processing. By contrast, approximately four out of every ten of the remaining institutions fell in that size category. Thus, small institutions tended disproportionately not to participate in the survey.

As for geographic location, six of the eight nonrespondents were situated in the northeast and north-central regions, as were two of the three institutions whose questionnaires arrived too late to be tallied. By contrast, a minority (23) of the 60 responding institutions were located in those regions. Thus, the nonrespondents tended to differ from the respondents in terms of geography as well.

Finally, 1890 institutions more often participated in the survey than 1862 institutions. Out of the 16 1890 institutions, 15 participated in the survey, all but one in time to computerize the data. Of the 55 1862 institutions, 48 participated in the survey, all but two in time for data processing.

On the basis of this evidence, the sound approach is to generalize the results of the survey only to the responding institutions.

APPENDIX K

Identification of Land-Grant Institutions

This appendix identifies land-grant institutions in the United States and outlying areas. For multicampus institutions, the list is specified to the campus level, identifying all campuses eligible for Bankhead-Jones funds. A campus-specific listing was needed in order to determine for this report the number of students attending land-grant campuses eligible for Bankhead-Jones funds, the amount of instructional expenditures at these campuses, and similar facts.

To compile a campus-specific listing, each institution was queried through a mail questionnaire (Appendix M) about the names of campuses eligible for Bankhead-Jones funds. (See the section preceding question 1 and footnote 1 to the questionnaire.) In many instances, only the name of the main campus was reported. To validate these responses, telephone interviews were conducted subsequently, usually with the official who completed the questionnaire, regarding the names of eligible campuses.

The names of the campuses identified through these procedures appear in the listing below. A few States volunteered that some campuses in a multicampus system were eligible for Bankhead-Jones funds, but did not receive any in 1978-1979. The listing denotes this situation, where specified. ^{1/}

^{1/} Some analysts have classified Tuskegee Institute as a land-grant institution, ostensibly because of its historic association with the black land-grant movement. Tuskegee Institute is eligible for Federal monies for extension activities and agricultural research along with 1890 land-grant institutions under the provisions of Section 1444 and 1445 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (P.L. 95-113). However, Tuskegee Institute is not designated as a land-grant institution by the State of Alabama, and hence does not receive Bankhead-Jones and Morrill-Nelson funds.

Listing of land-grant institutions, by campus, State, and FICE code, 1980

| State | Institution | FICE code |
|----------------------|---|-----------|
| Alabama | Alabama Agricultural and Mechanical University+ | 1002 |
| | Auburn University Main Campus | 1009 |
| | Auburn University at Montgomery | 8310 |
| Alaska | University of Alaska Fairbanks Campus | 1063 |
| | University of Alaska Anchorage Campus | 11462 |
| | University of Alaska Juneau Southeastern Senior College | 11463 |
| American Samoa | American Samoa Community College** | 10010 |
| Arizona | University of Arizona | 1083 |
| Arkansas | University of Arkansas at Little Rock* | 1101 |
| | University of Arkansas at Fayetteville | 1108 |
| | University of Arkansas Medical Science Campus* | 1109 |
| | University of Arkansas at Monticello* | 1085 |
| | University of Arkansas at Pine Bluff+ | 1086 |
| California | University of California at Berkeley | 1312 |
| | University of California at Davis | 1313 |
| | University of California at Irvine* | 1314 |
| | University of California at Los Angeles* | 1315 |
| | University of California at Riverside | 1316 |
| | University of California at San Diego* | 1317 |
| | University of California at Santa Barbara | 1320 |
| | University of California at Santa Cruz* | 1321 |
| Colorado | Colorado State University | 1350 |
| Connecticut | University of Connecticut | 29013 |
| Delaware | Delaware State College+ | 1428 |
| | University of Delaware | 1431 |
| District of Columbia | University of the District of Columbia | 29100 |
| Florida | Florida Agricultural and Mechanical University+ | 1480 |
| | University of Florida | 1535 |
| Georgia | Fort Valley State College+ | 1566 |
| | University of Georgia | 1598 |
| Guam | University of Guam | 3935 |

Footnotes appear at end of listing.

Listing of land-grant institutions, by campus, State, and FICE code, 1980
--continued

| State | Institution | FICE code |
|---------------|--|------------------|
| Hawaii | : University of Hawaii at Hilo* | : 29020 |
| | : University of Hawaii at Manoa | : 1610 |
| Idaho | : University of Idaho | : 1626 |
| Illinois | : University of Illinois Urbana Campus | : 1775 |
| Indiana | : Purdue University Main Campus | : 1825 |
| Iowa | : Iowa State University of Science and Technology | : 1869 |
| Kansas | : Kansas State University of Agriculture and Applied Science | : 1928 |
| Kentucky | : Kentucky State University+ : University of Kentucky | : 1968 : 1989 |
| Louisiana | : Louisiana State University and Agricultural and Mechanical College, Baton Rouge | : 2010 |
| | : Southern University Agricultural and Mechanical College, Baton Rouge+ | : 9636 |
| Maine | : University of Maine at Orono | : 2053 |
| Maryland | : University of Maryland, College Park | : 2103 |
| | : University of Maryland, Eastern Shore+ | : 2106 |
| Massachusetts | : Massachusetts Institute of Technology | : 2178 |
| | : University of Massachusetts Amherst Campus | : 2221 |
| | : University of Massachusetts Boston Campus | : 2222 |
| | : University of Massachusetts Medical School at Worcester | : 9756 |
| Michigan | : Michigan State University | : 2290 |
| Minnesota | : University of Minnesota at Duluth | : 2388 |
| | : University of Minnesota at Minneapolis and Saint Paul | : 3969 |
| | : University of Minnesota at Morris | : 2389 |
| | : University of Minnesota Technical College at Crookston | : 4069 |
| | : University of Minnesota Technical College at Waseca | : 10225 |
| | : | : |
| | : | : |

Footnotes appear at end of listing.

Listing of land-grant institutions, by campus, State, and FICE code, 1980
--continued

| State | Institution | FICE |
|----------------|---|-------|
| Mississippi | Alcorn State University+ | 2396 |
| | Mississippi State University | 2423 |
| Missouri | Lincoln University+ | 2479 |
| | University of Missouri at Columbia | 2516 |
| | University of Missouri at Rolla | 2517 |
| Montana | Montana State University | 2532 |
| Nebraska | University of Nebraska at Lincoln | 2565 |
| Nevada | University of Nevada at Las Vegas | 2569 |
| | University of Nevada at Reno | 2568 |
| New Hampshire | University of New Hampshire | 2589 |
| New Jersey | Rutgers The State University of New Jersey at Camden | 4741 |
| | Rutgers The State University of New Jersey at New Brunswick | 6964 |
| | Rutgers The State University of New Jersey at Newark | 2631 |
| New Mexico | New Mexico State University Main Campus | 2657 |
| New York | Cornell University Endowed Colleges | 2711 |
| | Cornell University Statutory Colleges | 11693 |
| North Carolina | North Carolina Agricultural and Technical State University+ | 2905 |
| | North Carolina State University at Raleigh | 2972 |
| North Dakota | North Dakota State University Main Campus | 9265 |
| Ohio | Ohio State University Main Campus | 6883 |
| Oklahoma | Langston University+ | 3157 |
| | Oklahoma State University Main Campus | 3170 |
| Oregon | Oregon State University | 3210 |
| Pennsylvania | Pennsylvania State University at Allentown* | 3330 |
| | Pennsylvania State University at Altoona* | 3331 |
| | Pennsylvania State University at Beaver* | 3332 |
| | Pennsylvania State University Behrend College* | 3333 |
| | Pennsylvania State University at Berks* | 3334 |
| | Pennsylvania State University at Capitol* | 6814 |

Listing of land-grant institutions, by campus, State, and FICE code, 1980
--continued

| State | Institution | FICE code |
|----------------|---|-----------|
| : | | : |
| Pennsylvania | Pennsylvania State University at Delaware* | 6922 |
| : | Pennsylvania State University at Du Bois* | 3335 |
| : | Pennsylvania State University at Fayette* | 3336 |
| : | Pennsylvania State University at Hazleton* | 3338 |
| : | Pennsylvania State University Main Campus at University Park | 6965 |
| : | Pennsylvania State University at McKeesport* | 3339 |
| : | Pennsylvania State University at Mont Alto* | 3340 |
| : | Pennsylvania State University at New Kensington* | 3341 |
| : | Pennsylvania State University, Ogontz Campus* | 3342 |
| : | Pennsylvania State University Radnor Center for Graduate Studies* | 3348 |
| : | Pennsylvania State University at Schuylkill* | 3343 |
| : | Pennsylvania State University at Shenango Valley* | 3345 |
| : | Pennsylvania State University at Wilkes-Barre* | 3346 |
| : | Pennsylvania State University at Worthington-Scranton* | 3344 |
| : | Pennsylvania State University at York* | 3347 |
| Puerto Rico | University of Puerto Rico at Mayaguez | 3944 |
| : | | : |
| Rhode Island | University of Rhode Island | 3414 |
| : | | : |
| South Carolina | Clemson University | 3425 |
| : | South Carolina State College+ | 3446 |
| : | | : |
| South Dakota | South Dakota State University | 3471 |
| : | | : |
| Tennessee | Tennessee State University+ | 3522 |
| : | University of Tennessee at Knoxville | 3530 |
| : | | : |
| Texas | Prairie View Agricultural and Mechanical University+ | 3630 |
| : | Texas A&M University Main Campus | 10366 |
| : | | : |
| Utah | Utah State University | 3677 |
| : | | : |
| Vermont | University of Vermont and State Agricultural College | 3696 |
| : | | : |
| Virginia | Virginia Polytechnic Institute and State University | 3754 |
| : | Virginia State College+ | 3764 |
| : | | : |
| Virgin Islands | College of the Virgin Islands | 8841 |
| | | : |

Footnotes appear at end of listing.

Listing of land-grant institutions, by campus, State, and FICE code, 1980
--continued

| State | Institution | FICE code |
|---------------|------------------------------------|-----------|
| : | | : |
| Washington | Washington State University | 3800 |
| West Virginia | West Virginia University | 3827 |
| Wisconsin | University of Wisconsin at Madison | 3895 |
| Wyoming | University of Wyoming | 3932 |

* Eligible for, but did not receive Bankhead-Jones funds in fiscal year 1979.

** Land-grant status pending, subject to Congressional approval.

+ 1890 (historically black) institution.

SOURCE: 1979 mail survey conducted by the National Association of State Universities and Land-Grant Colleges in cooperation with the U.S. Department of Agriculture.

APPENDIX L

Participation in Mail Survey

| State | : | Responding Institutions |
|----------------------|---|---|
| Alabama | : | :Alabama Agricultural and Mechanical University :Auburn University |
| Arizona | : | :University of Arizona |
| Arkansas | : | :University of Arkansas at Fayetteville :University of Arkansas at Pine Bluff |
| California | : | :University of California |
| Colorado | : | :Colorado State University |
| Connecticut | : | :University of Connecticut |
| Delaware | : | :Delaware State College :University of Delaware |
| District of Columbia | : | :University of the District of Columbia |
| Florida | : | :Florida Agricultural and Mechanical University :University of Florida <u>1/</u> |
| Georgia | : | :Fort Valley State College :University of Georgia |
| Guam | : | :University of Guam |
| Hawaii | : | :University of Hawaii |
| Idaho | : | :University of Idaho |
| Illinois | : | :University of Illinois |
| Indiana | : | :Purdue University |
| Iowa | : | :Iowa State University of Science and Technology |
| Kansas | : | :Kansas State University of Agriculture and Applied Science |
| Kentucky | : | :Kentucky State University :University of Kentucky |
| Louisiana | : | :Louisiana State University and Agricultural and : Mechanical College, Baton Rouge :Southern University Agricultural and Mechanical College, : Baton Rouge |
| Maine | : | :University of Maine at Orono <u>1/</u> |
| Maryland | : | :University of Maryland, College Park <u>2/</u> :University of Maryland, Eastern Shore <u>2/</u> |
| Minnesota | : | :University of Minnesota |
| Mississippi | : | :Alcorn State University :Mississippi State University |
| Missouri | : | :University of Missouri :Lincoln University <u>1/</u> |
| Montana | : | :Montana State University |
| | : | |

Footnotes appear at end of listing

Participation in Mail Survey - Continued

| State | : | Responding Institutions |
|------------------------------------|---|--|
| Nebraska | : | :University of Nebraska, Lincoln |
| Nevada | : | :University of Nevada |
| New Hampshire | : | :University of New Hampshire |
| New Jersey | : | :Rutgers The State University of New Jersey |
| New Mexico | : | :New Mexico State University Main Campus |
| New York | : | :Cornell University |
| North Carolina | : | :North Carolina Agricultural and Technical State University :North Carolina State University at Raleigh |
| Ohio | : | :Ohio State University |
| Oklahoma | : | :Langston University :Oklahoma State University Main Campus |
| Oregon | : | :Oregon State University |
| Pennsylvania | : | :Pennsylvania State University |
| Puerto Rico | : | :University of Puerto Rico Mayaguez Campus |
| South Carolina | : | :Clemson University :South Carolina State College |
| South Dakota | : | :South Dakota State University |
| Tennessee | : | :Tennessee State University :University of Tennessee at Knoxville |
| Texas | : | :Texas A&M University Main Campus |
| Utah | : | :Utah State University |
| Vermont | : | :University of Vermont and State Agricultural College |
| Virginia | : | :Virginia Polytechnic Institute & State University :Virginia State College |
| Washington | : | :Washington State University |
| West Virginia | : | :West Virginia University |
| Wisconsin | : | :University of Wisconsin at Madison |
| Wyoming | : | :University of Wyoming |
| <u>Institutions Not Responding</u> | | |
| Alaska | : | :University of Alaska |
| Massachusetts | : | :Massachusetts Institute of Technology :University of Massachusetts |
| Michigan | : | :Michigan State University |
| North Dakota | : | :North Dakota State University Main Campus |
| Rhode Island | : | :University of Rhode Island |
| Texas | : | :Prairie View Agricultural & Mechanical University |
| Virgin Islands | : | :College of the Virgin Islands |

1/ Questionnaire received too late for machine processing.

2/ Data for both institutions were submitted in the same questionnaire.
Only the information to questions 1(a) and (b) were reported for each campus.

APPENDIX M

Mail Questionnaires and Tabulation of Responses

As part of the Bankhead-Jones review, a mail survey was conducted by the National Association of State Universities and Land-Grant Colleges, with the cooperation of the U.S. Department of Agriculture. The survey was designed to collect information on the amount of Bankhead-Jones and Morrill-Nelson funds received by land-grant institutions in 1978-79, how these funds were used, and relevant enrollment information. In this appendix are the following:

- A letter requesting cooperation with the survey from Robert L. Clodius, President, National Association of State Universities and Land-Grant Colleges, sent to the chief executive officer of all 71 land-grant institutions;
- The mail questionnaire, to which has been added the answers received from institutions participating in the survey;
- Office of Education (OE) Form 1275, "Report of the Treasurer: Land-Grant and Supplementary Morrill Funds," which accompanied the letter and mail questionnaire.

Financial and enrollment statistics are reported in thousands, except where noted. The following symbols appear in this appendix:

- (N) Indicates the number of institutions responding to each question item.
- * Indicates the number of responses received. In some cases, a respondent gave more than one answer.
- + Indicates a value of less than 500, but more than zero.
- No revenues or expenditures reported for this category.



National Association
of State Universities
and Land-Grant Colleges

Robert L. Clodius, President

December 3, 1979

Name _____
Address _____
State _____

Dear _____:

Congress has provided an appropriation of \$11,500,000 for the Bankhead-Jones Act in fiscal year 1980. It has also called for a detailed review of the Bankhead-Jones Program by the U.S. Department of Agriculture in cooperation with appropriate non-governmental representatives. This study is to be completed by March 1, 1980, in order to provide information to the Congress that is likely to influence future decisions about the program. The Association has responded affirmatively to the Department's request for assistance in assembling essential information for the study and is disseminating the enclosed questionnaire for that purpose.

An early deadline for Friday, December 21, 1979, is required for returning the enclosed questionnaire in order to complete a first draft of the report in time for a meeting of our university representatives on this subject, Friday, January 11, here at the Association headquarters. Dr. Robert MacVicar, President of Oregon State University, is Chairman of the NASULGC group that will review the study results. I join him in an urgent request for your timely response to the survey.

The majority of the questions require financial data which should be relatively easy to obtain. Questions 7.a., 7.b., and 9 request qualitative responses. Please be certain that these answers reflect the university's position.

To expedite the timely return of your survey, an envelope is enclosed, that is addressed to Dr. Robert L. Clodius, President, National Association of State Universities and Land-Grant Colleges, One Dupont Circle, Suite 710, Washington, D.C. 20036, ATTN: Bankhead-Jones Study.

The Office of Education has discarded summary reports of Bankhead-Jones and Morrill-Nelson Act funds and data reported in Form 1275, "Report of the Treasurer, Land Grant and Supplementary Morrill Funds," prior to 1970. If your institution has a file of the annual Office of Education Reports prior to 1970, please send copies of all available reports to the above address as soon as possible. Thank you for your cooperation.

Sincerely,

Robert L. Clodius
President

Enclosure: Questionnaire and return envelope

December 4, 1979

SURVEY OF BANKHEAD-JONES PROGRAM

INSTRUCTIONS

The following questionnaire is designed to collect data that are required to fulfill the Congressionally-requested, detailed review of Federal funds provided for instruction in Land-Grant Universities under the Bankhead-Jones Act of 1935 (Public Act. No. 182, Title II, Sec. 22). The requested data generally follow and are consistent with the data reported in Section III of the annual Office of Education (OE), Form 1275, "Report of the Treasurer, Land-Grant and Supplementary Morrill Funds," though they are requested here in somewhat greater detail. The Supplementary Morrill Funds include both Bankhead-Jones funds and Morrill-Nelson funds provided under the 1907 Nelson Amendment (34 Stat. L., p. 128) to the 1890 Morrill Act (26 Stat. L., p. 417). Both Bankhead-Jones and Morrill-Nelson funds are treated in the following questionnaire. A copy of the OE Form 1275 and Instructions is attached with the questionnaire for your information.

Please complete this questionnaire as accurately and completely as possible. Read both the questions and footnotes carefully before answering. Respond with absolute dollar figures. All the information asked for in this survey is essential to our study of the Bankhead-Jones program. If you have any questions, please call Dr. Rod Bertramson/ Dr. Jane Roth, (202) 447-5211 or 447-2255.

Please provide the name and title of the person who furnishes financial and student enrollment data for this questionnaire along with a telephone number so that we may contact him/her, if we have any questions.

Name _____

Title _____

Institution _____

Telephone No. () _____

Is this person the same individual who completes the annual U.S. Office of Education (OE), Form 1275, "Report of the Treasurer, Land-Grant and Supplementary Morrill Funds," and especially Section III which applies to the receipt of Morrill-Nelson and Bankhead-Jones Act funds?

Yes _____ No _____

If not, please provide the name, title, and telephone number of the person who does complete OE Form 1275.

Name _____

Title _____

Institution _____

Telephone No. () _____

PLEASE NOTE SPECIAL DEFINITIONS OF TERMS USED IN

THIS SURVEY THAT ARE DEFINED IN FOOTNOTES

SURVEY OF BANKHEAD-JONES PROGRAM

Institution¹ _____

If applicable, list multi-campuses for which data are reported.

1. a. How much money did your institution¹ receive for instruction² under the Bankhead-Jones Act in the 1978-79 fiscal year? (60) 9,826
- b. How much money did your institution¹ receive under the Morrill-Nelson Act in the 1978-79 fiscal year? (60) 2,299
2. a. What were your institution's¹ total expenditures for instruction² during the 1978-79 fiscal year? This should be the amount reported in your 1978-79 HEGIS, Part B (Current Funds, Expenditures and Mandatory Transfers for Fiscal Year Ending 1979) on line 1. (59) 2,600,789
- b. In the first column, on the following page, indicate the amount spent on instruction² from each of the funding sources. The sum of these amounts should equal the instructional total, as shown in 2a. Refer to your 1978-79 HEGIS, Part A (Current Funds Revenues by Source for Fiscal Year Ending 1979). If exact amounts are not available, please estimate each of the amounts and designate by "est."

In the second column on the following page, indicate the amount of money in each of the funding sources for instruction for which there are limited restrictions (flexibility) comparable to Bankhead-Jones funds that are available for instruction³. Once again, if exact amounts are not known, make estimates and designate by "est."

Question 2. b. continued

-2-

| <u>Funding Source</u> | <u>Expenditures for instruction²</u> | <u>Funds with limited restrictions (flexibility) comparable to Bankhead-Jones funds that are available for instruction³</u> |
|--------------------------------------|---|--|
| TUITION AND FEES | (47) 515,032 | (15) 250,459 |
| GOVERNMENT APPROPRIATIONS | | |
| Federal | | |
| Bankhead-Jones Funds (same as 1.a.) | (47) 7,882 | N/A |
| Morrill-Nelson Funds (same as 1.b.) | (50) 2,191 | N/A |
| Other Funds | (10) 19,447 | (4) 23,344 |
| State | (49) 1,438,166 | (18) 487,253 |
| Local | (1) 24,588 | (0) -0- |
| GOVERNMENT GRANTS AND CONTRACTS | | |
| Federal | | |
| unrestricted | (16) 20,375 | (5) 8,570 |
| restricted | (38) 100,893 | (12) 30,674 |
| State | | |
| unrestricted | (10) 2,690 | (5) 607 |
| restricted | (32) 22,356 | (7) 11,477 |
| Local | | |
| unrestricted | (4) 1,198 | (1) 167 |
| restricted | (13) 1,751 | (2) 417 |
| PRIVATE GIFTS, GRANTS, AND CONTRACTS | | |
| unrestricted | (12) 2,210 | (5) 1,771 |
| restricted | (33) 42,782 | (8) 7,742 |
| ENDOWMENT INCOME | | |
| unrestricted | (19) 9,551 | (13) 10,860 |
| restricted | (13) 5,663 | (5) 3,156 |
| OTHER SOURCES | | |
| (please specify): | | |
| | (*51) 194,368 | (21) 127,668 |
| | | |
| | | |
| | | |
| | | |
| Total | (55) 2,494,820 | (35) 964,518 |
| | (Should equal item 2.a.) | |

3. What were the amounts of funds from the respective sources that your institution¹ expended in 1978-79 (or budgeted if expended in not available) for instruction within the following areas.⁴ If exact amounts are not available, please estimate each of the amounts and designate by "est."

| | | | | | |
|--------|-----------|---|----|----------|----|
| check: | budgeted | 2 | or | expended | 56 |
| | No Answer | 5 | | | |

| <u>Areas of Instruction⁴</u> | <u>Expenditures² for Instruction²</u> (HEGIS, Part B, line 1) | <u>Funds with Limited Restrictions (flexibility) Comparable to Bankhead-Jones Funds that are Available for Instruction³</u> |
|---|--|--|
| Agriculture and Natural Resources | (52) 116,631 | (29) 40,215 |
| Biological Science | (52) 165,430 | (23) 46,473 |
| Engineering | (47) 240,235 | (23) 99,975 |
| Home Economics | (51) 48,583 | (24) 16,466 |
| Veterinary Medicine | (26) 56,980 | (13) 21,698 |
| Landscape Architecture | (15) 4,563 | (9) 2,003 |
| All Other | (52) 1,846,490 | (27) 630,466 |
| Total | (56) 2,575,928 (Same as Item 2.a.) | (33) 962,914 (Same as Column 2 total, Item 2.b.) |

4. a. Does your institution's accounting system provide the information for identifying the following specific uses of Bankhead-Jones and Morrill-Nelson funds?

yes _____ no _____

Yes; provided numbers 22
Yes; provided only totals 2
No; provided numbers 22
No; provided only totals or no figures. . 10
Other 5
No answer 2

- b. What amounts of Bankhead-Jones and Morrill-Nelson funds were spent for the following areas of instruction during the 1978-79 fiscal year? Please use definitions of salaries and facilities consistent with OE Form 1275. If exact amounts are not available, please estimate each of the amounts and designate by "est."

| Areas of Instruction ⁴ | Bankhead-Jones | | | Morrill-Nelson | | |
|-----------------------------------|----------------|------------|-----------------------------------|----------------|------------|---------------------------------|
| | Salaries | Facilities | Total | Salaries | Facilities | Total |
| Agriculture & Natural Resources | (30) 1,413 | (7) 199 | (34) 1,836 | (35) 530 | (6) 45 | (36) 57 |
| Biological Science | (30) 1,068 | (6) 73 | (30) 917 | (24) 242 | (4) 13 | (26) 25 |
| Engineering | (32) 2,068 | (7) 365 | (34) 2,433 | (29) 443 | (3) 34 | (30) 47 |
| Home Economics | (21) 287 | (5) 24 | (22) 311 | (19) 66 | (4) 4 | (20) 7 |
| Veterinary Medicine | (3) 19 | (3) 21 | (5) 40 | (4) 5 | (2) + | (5) |
| Landscape Architecture | (5) 90 | (3) 9 | (5) 99 | (2) 5 | - | (2) |
| All Other | (31) 2,653 | (7) 370 | (34) 3,023 | (30) 700 | (4) 34 | (32) 78 |
| Total | (47) 7,159 | (10) 1,062 | (51) 8,810 (same as Item 1.a.) | (47) 1,966 | (7) 129 | (52) 229 (same as Item 1.b.) |

4. c. What amounts of Bankhead-Jones and Morrill-Nelson funds were spent for the following activities within the appropriate areas of instruction during the 1978-79 fiscal year? Column totals for areas of instruction should equal corresponding row totals in Item 4.b. If exact amounts are not available, please estimate each of the amounts and designate by "est."

Bankhead-Jones Funds

| <u>Activities</u> | <u>Agriculture & Natural Resources</u> | <u>Bio-logical Science</u> | <u>Engin-eering</u> | <u>Home Econ.</u> | <u>Vet. Med.</u> | <u>Landscape Architec-ture</u> | <u>All Other</u> | <u>Total</u> |
|------------------------------|--|----------------------------|---------------------|-------------------|------------------|--------------------------------|------------------|--------------|
| Special Programs | (1) 18 | (1) 1 | (1) 3 | (1) 4 | (1) 1 | (1) 2 | (1) 10 | (1) 39 |
| Guest speakers | (1) 23 | (2) 4 | (1) 12 | (1) 15 | (1) 2 | (1) 8 | (2) 33 | (2) 98 |
| Special professors' salaries | (4) 212 | (5) 169 | (3) 205 | (6) 122 | - | (1) 62 | (4) 317 | (8) 1,416 |
| Instructional equipment | (4) 113 | (2) 33 | (2) 112 | (1) 5 | (1) 20 | (2) 7 | (3) 199 | (5) 471 |
| New programs | (1) 1 | - | - | - | - | - | - | (1) 1 |
| Curriculum development | (2) 6 | (1) 6 | - | (1) 5 | (1) + | - | (1) 11 | (2) 349 |
| Other authorized salaries | (25) 1,309 | (20) 566 | (27) 1,571 | (12) 105 | (2) 13 | (3) 9 | (26) 1,925 | (38) 5,467 |
| Others (please specify) | (9) 99 | (*8) 92 | (10) 461 | (*8) 34 | (1) 4 | - | (*9) 488 | (*9) 841 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Total | (31) 1,634 | (28) 785 | (32) 2,305 | (19) 276 | (4) 40 | (4) 88 | (32) 2,933 | (48) 9,916 |

(same as
Item 1.e.)

4.c. continued

Morrill-Nelson Funds

| Activities | Agriculture & Natural Resources | Bio-logical Science | Engin-eering | Home Econ. | Vet. Med. | Landscape Architec-ture | All Other | Total |
|------------------------------|---------------------------------|---------------------|--------------|------------|-----------|-------------------------|-----------|-----------------------------------|
| Special programs | - | - | (1) 6 | - | - | - | - | - |
| Guest speakers | - | - | - | - | - | - | - | - |
| Special professors' salaries | (4) 66 | (3) 25 | (3) 51 | (1) 1 | - | - | (3) 23 | (6) 167 |
| Instructional equipment | (1) + | (1) 4 | - | (1) 1 | - | - | (1) + | - |
| New programs | (1) + | - | - | - | - | - | - | - |
| Curriculum development | (1) + | (1) 1 | (1) 6 | (1) 1 | - | - | - | - |
| Other auth- orized salaries | (27) 463 | (17) 189 | (24) 341 | (13) 52 | (3) 8 | (1) 3 | (26) 628 | (40) 1,684 |
| Others (please specify) | (*11) 64 | (*8) 26 | (*9) 84 | (*9) 11 | (2) 1 | | (*8) 73 | (*13) 259 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Total | (35) 1,044 | (25) 246 | (30) 476 | (16) 62 | (5) 9 | (1) 3 | (32) 725 | (50) 2,237 (same as Item 1.b.) |

- a. What was your institution's¹ fulltime equivalent undergraduate and graduate enrollment in the following categories for fall 1973 through fall 1978? Refer to your HEGIS Fall Enrollment and Compliance Report of Institutes of Higher Education for the fall 1976 and 1978 data. These documents have the information requested for all areas of instruction except Home Economics and Landscape Architecture. If you have the student enrollment in these areas, please include. Also, please provide figures for the other years if they are available.

| <u>Areas of Instruction</u> | <u>FTE Undergraduates Including Professional Students</u> | | | | | | | | | | | |
|-----------------------------------|---|------------------|------------------|------------------|------------------|------------------|------|-----|------|-----|------|-----|
| | <u>Fall 1973</u> | <u>Fall 1974</u> | <u>Fall 1975</u> | <u>Fall 1976</u> | <u>Fall 1977</u> | <u>Fall 1978</u> | | | | | | |
| Agriculture and Natural Resources | (33) | 29 | (36) | 33 | (38) | 40 | (49) | 59 | (41) | 43 | (52) | 57 |
| Biological Sciences | (34) | 35 | (37) | 38 | (39) | 40 | (50) | 49 | (42) | 40 | (53) | 47 |
| Engineering | (30) | 40 | (33) | 44 | (35) | 55 | (47) | 87 | (40) | 73 | (50) | 105 |
| Veterinary Medicine | (11) | 4 | (13) | 4 | (13) | 4 | (19) | 7 | (16) | 4 | (20) | 7 |
| Home Economics | (33) | 18 | (37) | 19 | (39) | 21 | (43) | 26 | (41) | 22 | (47) | 26 |
| Landscape Architecture | (12) | 1 | (13) | 2 | (15) | 2 | (20) | 3 | (20) | 2 | (22) | 3 |
| Total | (35) | 126 | (40) | 140 | (41) | 163 | (50) | 227 | (43) | 184 | (53) | 241 |

Question 5.a. continued

| <u>Areas of Instruction</u> | <u>FTE Graduate Students</u> | | | | | |
|-----------------------------------|------------------------------|------------------|------------------|------------------|------------------|------------------|
| | <u>Fall 1973</u> | <u>Fall 1974</u> | <u>Fall 1975</u> | <u>Fall 1976</u> | <u>Fall 1977</u> | <u>Fall 1978</u> |
| Agriculture and Natural Resources | (29) 5 | (32) 6 | (34) 7 | (45) 10 | (36) 8 | (47) 10 |
| Biological Science | (28) 6 | (32) 7 | (34) 8 | (44) 10 | (35) 9 | (46) 10 |
| Engineering | (26) 9 | (30) 10 | (31) 11 | (41) 14 | (32) 12 | (43) 14 |
| Veterinary Medicine | (13) 1 | (13) 1 | (14) 1 | (18) 1 | (15) 1 | (20) 2 |
| Home Economics | (25) 1 | (30) 2 | (31) 2 | (37) 2 | (31) 2 | (39) 2 |
| Landscape Architecture | (9) + | (11) + | (12) 1 | (15) 1 | (12) 1 | (15) 1 |
| Total | (29) 23 | (33) 26 | (34) 29 | (43) 37 | (35) 31 | (45) 38 |

b. What was your institution's total student enrollment from Fall 1973 through Fall 1978?

| | <u>FTE Undergraduates Including Profes- sional Students</u> | <u>FTE Graduate Students</u> |
|-----------|---|--------------------------------------|
| Fall 1973 | (55) 757 | (52) 142 |
| Fall 1974 | (56) 788 | (53) 147 |
| Fall 1975 | (57) 836 | (55) 150 |
| Fall 1976 | (57) 864 | (55) 159 |
| Fall 1977 | (57) 843 | (55) 152 |
| Fall 1978 | (58) 893 | (56) 153 |

- a. Does your institution's accounting system provide the information for identifying the following specific uses of Bankhead-Jones and Morrill-Nelson funds?

yes _____

no _____

| | |
|--|----|
| Yes; provided numbers | 30 |
| No; provided numbers | 22 |
| No; provided only totals or no numbers . . . | 6 |
| Other | 1 |
| No answer | 4 |

- b. What amounts of the Bankhead-Jones and Morrill-Nelson funds were spent for the following OE Form 1275 subject matter categories during the 1978-79 fiscal year? Please use definitions of subject matter categories and salaries and facilities, consistent with OE Form 1275, "Report of the Treasurer, Land-Grant and Supplementary Morrill Funds." If exact amounts are not available, please estimate each of the amounts and designate by "est."

| OE Form 1275 Categories | Bankhead-Jones Funds | | | Morrill-Nelson Funds | | |
|--------------------------------------|----------------------|------------|--------------------------------------|----------------------|------------|--------------------------------------|
| | Salaries | Facilities | Total | Salaries | Facilities | Total |
| Agriculture | (31) 1,432 | (8) 272 | (34) 1,705 | (35) 493 | (7) 64 | (37) 556 |
| Mechanic Arts | (37) 2,053 | (8) 362 | (40) 2,415 | (33) 439 | (5) 48 | (35) 487 |
| English Language | (32) 984 | (3) 19 | (34) 1,003 | (32) 263 | (3) 4 | (34) 267 |
| Mathematical Science | (27) 629 | (4) 72 | (30) 700 | (27) 175 | (3) 6 | (29) 181 |
| Natural & Physical Science | (37) 1,845 | (9) 310 | (41) 2,094 | (37) 571 | (5) 28 | (40) 599 |
| Economic Science | (25) 504 | (6) 37 | (28) 541 | (21) 136 | (5) 8 | (23) 144 |
| Special Prepara- tion of Teachers | (7) 80 | (5) 89 | (10) 170 | (7) 31 | (1) 19 | (8) 50 |
| Total | (47) 7,531 | (11) 1,181 | (51) 8,899 (same as Item 1.a.) | (49) 2,109 | (8) 179 | (52) 2,338 (same as Item 1.b.) |

Question 6 continued

- c. Please specify the amounts of the Bankhead-Jones and Morrill-Nelson funds that were spent for the following activities within the appropriate OE Form 1275 categories during the 1978-79 fiscal year. Column totals here should equal corresponding row totals in Item 6.b. If exact amounts are not available, please estimate each of the amounts and designate by "est."

BANKHEAD-JONES FUNDS

| Activities | Agric. | Mechanic Arts | English Language | Mathematical Science | Natural & Physical Science | Econ. Science | Special Teachers | Total |
|------------------------------|------------|---------------|------------------|----------------------|----------------------------|---------------|------------------|------------------------------------|
| Special programs | (1) 21 | (1) 6 | (1)+ | (1) 1 | (1) 3 | (1) 6 | (1) 3 | (3) 285 |
| Guest speakers | (1) 26 | (1) 22 | (1) 4 | (2) 6 | (1) 8 | (1) 13 | (1) 17 | (2) 95 |
| Special professors' salaries | (4) 172 | (3) 252 | (3) 127 | - | (5) 239 | (4) 105 | - | (5) 862 |
| Instructional equipment | (4) 135 | (3) 117 | - | (1) 40 | (3) 176 | (1) + | (2) 3 | (6) 472 |
| New programs | (1) 1 | - | - | - | - | - | - | (1) 1 |
| Curriculum development | (2) 6 | - | - | - | - | (2) 8 | (1) 9 | (2) 16 |
| Other authorized salaries | (26) 1,297 | (31) 1,432 | (26) 689 | (24) 554 | (29) 1,319 | (18) 312 | (6) 54 | (39) 5,489 |
| Others (please specify) | (*9) 110 | (*9) 185 | (*5) 284 | (*5) 59 | (*12) 420 | (*7) 100 | (*3) 7 | (*11) 1,199 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Total | (32) 1,581 | (37) 2,190 | (33) 1,105 | (28) 660 | (37) 1,838 | (27) 544 | (9) 93 | (49) 10,241 (Same as Item 1.a.) |

Question 5.c. continued

Morrill-Nelson Funds

| Activities | Mechanic Agric. | Arts | English lan- guage | Mathe- matical Science | Natural & Physical Science | Econ. Science | Special Prepara- tion of Teachers | Total |
|------------------------------------|--------------------|----------|--------------------------|------------------------------|----------------------------------|------------------|--|------------------------|
| Special programs | - | - | - | (1) 14 | (2) 6 | - | - | - |
| Guest speakers | - | - | - | - | - | - | - | - |
| Special professors' salaries | (3) 31 | (2) 39 | (3) 20 | | (2) 18 | (1) 4 | - | (5) 115 |
| Instrucional equipment | (1) + | - | - | | (1) + | - | - | (2) + |
| New program | (1) + | - | - | | - | - | - | (1) + |
| Curriculum development | (1) + | - | - | | - | - | - | (1) + |
| Other authorized salaries | (29) 479 | (26) 308 | (24) 217 | (22) 146 | (27) 459 | (17) 110 | (6) 80 | (40) 1,783 |
| Others (please specify) | (*11) 67 | (*10) 72 | (*7) 28 | (*7) 28 | (*11) 60 | (*8) 30 | (*2) 1 | (*12) 269 |
| <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
| <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
| <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
| <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
| Total | (36) 577 | (32) 410 | (32) 265 | (26) 161 | (36) 536 | (22) 144 | (8) 81 | (49) 2,218 |
| | | | | | | | | (same as Item 1.b.) |

7. a. Describe the specific impacts resulting from the uses of the Bankhead-Jones funds.
7. b. Describe the specific impacts resulting from the uses of the Morrill-Nelson funds.

8. Please indicate and discuss issues that should be examined in a study of the funds appropriated through the Bankhead-Jones Act of 1935. (Additional sheets of paper may be attached if necessary.)

FOOTNOTES TO SURVEY

1--Institution -- Institution means all campuses of a university designated to receive Bankhead-Jones funds. For example, if all campuses at a multi-campus university are eligible to receive Bankhead-Jones funds, then responses to the survey questions should reflect all campuses. However, if only one particular campus at a multi-campus university is eligible to receive Bankhead-Jones funds, then the responses to the survey questions must reflect only that one campus. The key word is "eligible." Therefore, you may be including data on institutions who do not specifically receive Bankhead-Jones funds.

2--Instruction -- Instruction means all undergraduate and graduate activities (courses and programs) related to instruction including educational supplies and equipment but excluding extension. For additional information see definition for instruction in Part B, line 1 of HEGIS survey.

3--Funds with limited restrictions (flexibility) comparable to Bankhead-Jones Funds that are available for instruction--

Bankhead-Jones funds are given to the institution with few limitations. They generally can be spent at the discretion of administrator of the institution. Funds comparable to Bankhead-Jones funds should be available for similar discretionary administration uses. For additional information on the possible uses and restrictions of the Bankhead-Jones funds, please see OE Form 1275, page 2 of Rulings and Instructions Relative to Supplementary Morrill Funds.

4--Agriculture and natural resources, biological sciences, engineering, home economics, and related areas--

- Agriculture and Natural Resources

- Agriculture, general
- Agronomy (field crops, and crop management)
- Soils science (management and conservation)
- Animal science (husbandry)
- Dairy science (husbandry)
- Poultry science
- Fish, game and wildlife management
- Horticulture (fruit and vegetable production)
- Ornamental horticulture (floriculture, nursery science)
- Agriculture and farm management
- Agriculture economics
- Food science and technology
- Forestry
- Natural resources management
- Agriculture and forestry technologies (baccalaureate and higher programs)
- Range management
- Agriculture education
- Apiculture
- Other related areas

- Biological sciences

- Biology, general
- Botany, general
- Bacteriology
- Plant pathology
- Plant pharmacology
- Plant physiology

Footnote 4 CONTINUED

● Biological sciences (continued)

Zoology, general
Pathology, human and animal
Pharmacology, human and animal
Physiology, human and animal
Microbiology
Anatomy
Histology
Biochemistry
Biophysics
Molecular biology
Cell biology (cytology, cell physiology)
Marine biology
Biometrics and Biostatistics
Ecology
Entomology
Genetics
Radiobiology
Nutrition, scientific (excludes nutrition in home economics and dietetics)
Neurosciences
Toxicology
Embryology
Other related areas

● Engineering

Engineering, general
Aerospace, aeronautical and astronautical engineering
Agricultural engineering
Architectural engineering
Bioengineering and biomedical engineering
Chemical engineering (include petroleum refining)
Petroleum engineering (exclude petroleum refining)
Civil, construction, and transportation engineering
Electrical, electronics, and communications engineering
Mechanical engineering
Geological engineering
Geophysical engineering
Industrial and management and engineering
Metallurgical engineering
Materials engineering
Ceramic engineering
Textile engineering
Mining and mineral engineering
Engineering physics
Nuclear engineering
Engineering mechanics
Environmental and sanitary engineering
Naval architecture and marine engineering
Ocean engineering
Engineering technologies (baccalaureate and higher programs)
Experimental engineering
Irrigation engineering
Railway engineering
Other related areas

Footnote 4 CONTINUED

- Home Economics
 - Home economics, general
 - Home decoration and home equipment
 - Clothing and textiles
 - Consumer economics and home management
 - Family relations and child development
 - Foods and nutrition (include dietetics)
 - Institutional management and cafeteria management
 - Other related areas
 - Industrial arts, vocational, and technical education
- Veterinary medicine
- Landscape architecture

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

REPORT OF THE TREASURER
LAND-GRANT AND SUPPLEMENTARY MORRILL FUNDS

Return in duplicate.
For instructions, see
attached sheet.

FORM APPROVED
OMB NO. S1-R0966

FISCAL YEAR ENDED
June 30, 1976

| | |
|---------------------|---|
| NAME OF INSTITUTION | ADDRESS (number, street, city, State, and ZIP code) |
|---------------------|---|

I. THE 1862 LAND-GRANT FUND, OR FUNDS FROM LAND GRANTS MADE IN LIEU OF THE 1862 GRANT

A. CONDITION OF THE FUND

| | |
|---|----|
| 1. AMOUNT OF THE 1862 LAND-GRANT FUND AT THE BEGINNING OF THE FISCAL YEAR | \$ |
| 2. ADDITIONS TO THE FUND DURING THE YEAR ENDED JUNE 30 | \$ |
| 3. TOTAL (sum of Lines 1 and 2) | \$ |
| AMOUNT OF THE FUND JUNE 30 | \$ |
| 4. INVESTED | \$ |
| 5. DEFERRED PAYMENTS ON PURCHASE OF LANDS | \$ |
| 6. CASH ON HAND | \$ |
| 7. TOTAL (sum of Lines 4, 5, and 6) | \$ |

UNSALE LAND, JUNE 30

| B:a. NUMBER OF ACRES (2-3) | B:b. VALUE PER ACRE → \$ | B:c. TOTAL VALUE (2-2) | \$ |
|----------------------------------|--------------------------------|------------------------------|----|
|----------------------------------|--------------------------------|------------------------------|----|

B. RECEIPTS

| | | |
|--|-------|----|
| 9. BALANCE FROM PREVIOUS YEAR | (6-3) | \$ |
| 10. INCOME FOR THE YEAR ENDED JUNE 30, ON INVESTED FUNDS | (6-5) | \$ |
| 11. INCOME FROM RENTALS, TIMBER RIGHTS, WATER RIGHTS, ETC. | (6-6) | \$ |
| 12. INTEREST ON DEFERRED PAYMENTS OF PURCHASE MONEY | (6-6) | \$ |
| 13. TOTAL (sum of Lines 9, 10, 11, and 12) | (6-4) | \$ |

C. EXPENDITURES

| | | |
|--|-------|----|
| 14. FOR SALARIES (year ended June 30) | (6-8) | \$ |
| 15. FOR FACILITIES OR INSTRUCTION (year ended June 30) | (6-9) | \$ |
| 16. TOTAL (sum of Lines 14 and 15) | (6-7) | \$ |

D. BALANCE

| | | |
|--|--------|----|
| 17. BALANCE REMAINING UNEXPENDED (June 30) | (6-10) | \$ |
|--|--------|----|

E. DIVISION OF THE RECEIPTS BETWEEN TWO INSTITUTIONS

18. IF THE RECEIPTS FROM THE MORRILL-NELSON FUNDS ARE DIVIDED, STATE HERE THE BASIS OF DIVISION FOR THE YEAR

| | | | | |
|-------------------------|-------|----|-------|-------|
| 19. TO THIS INSTITUTION | (7-5) | \$ | RATIO | % |
| 20. TO OTHER (specify) | | \$ | RATIO | % |
| | | | TOTAL | 100 % |

| II. OTHER FEDERAL LAND-GRANT FUNDS | | | TOTALS (year ended June 30) |
|---|-------------------------------|----------------------------------|--------------------------------|
| 21. AMOUNT OF FUNDS FROM OTHER FEDERAL LAND GRANTS | | | \$ |
| 22. INCOME FROM SUCH FUNDS FOR THE YEAR-ENDED JUNE 30 | | | (6.11) \$ |
| 23(a). NUMBER OF ACRES (2.5) → | 23(b). VALUE PER ACRE → \$ | 23(c). TOTAL VALUE (2.4) → \$ | |
| III. SUPPLEMENTARY MORRILL FUNDS (<i>funds received under acts of Congress of August 30, 1890, March 4, 1907, and June 29, 1935 (Title II, Section 22) in aid of Colleges of Agriculture and the Mechanic Arts.</i>) | | | |
| A. INTEREST | | | |
| 24. INTEREST ACCRUED-- FISCAL YEAR ENDED JUNE 30. THIS AMOUNT IS HEREWITH RETURNED (check) TO BE COVERED INTO THE UNITED STATES TREASURY AS MISCELLANEOUS RECEIPTS <i>(ruling January 16, 1913)</i> | | | \$ |
| B. RECEIPTS | | | |
| 25. BALANCE AT BEGINNING OF YEAR | (7.3) | \$ | TOTALS (year ended June 30) |
| 26. AMOUNT OF ANNUAL INSTALLMENT RECEIVED <i>(same as 1A on Regular Federal Appropriations)</i> | (7.4) | \$ | |
| 27. TOTAL RECEIPTS | (7.2) | \$ | |
| C EXPENDITURES | | | |
| SCHEDULES | | | |
| 28. AGRICULTURE (4.3) | \$ | \$ | \$ |
| 29. MECHANIC ARTS (4.4) | \$ | \$ | \$ |
| 30. ENGLISH LANGUAGE (4.5) | \$ | \$ | \$ |
| 31. MATHEMATICAL SCIENCE (4.6) | \$ | \$ | \$ |
| 32. NATURAL AND PHYSICAL SCIENCE (4.7) | \$ | \$ | \$ |
| 33. ECONOMIC SCIENCE (4.8) | \$ | \$ | \$ |
| 34. SPECIAL PREPARATION OF TEACHERS (4.9) | \$ | \$ | \$ |
| 35. TOTAL EXPENDITURES. YEAR ENDED JUNE 30 | (7.7) | \$ | (4.2) |
| D. BALANCE | | | |
| 36. BALANCE REMAINING UNEXPENDED (June 30) (NOTE: please append a statement explaining any unex- pended balance. See note concerning BALANCE on the attached sheet, page 1.) | | | (7.9) \$ |

IV. CERTIFICATION BY THE TREASURER

I HEREBY CERTIFY (A) that no portion of the expenditures of the 1862 land-grant fund was applied "directly or indirectly, under any pretense whatever to the purchase, erection, preservation, or repair of any building or buildings;" that no portion of said sum has been used to defray any "expenses incurred in the management and disbursement of moneys received" from the sale of land granted by act of Congress approved July 2, 1862, nor for "management, superintendence, and taxes from date of selection of said lands previous to their sales," and (B) that the report as rendered for the Supplementary Morrill Funds is true and correct, and that the funds were expended in accordance with the rulings printed on this form.

| | | |
|------|---------------------------------|------------------------|
| DATE | TYPE OR PRINT NAME OF TREASURER | SIGNATURE OF TREASURER |
|------|---------------------------------|------------------------|

V. CERTIFICATION BY THE PRESIDENT

I HEREBY CERTIFY that _____ is the treasurer of the above-mentioned institution.
I further certify that I have examined the above report and that, to the best of my knowledge and belief, it is correct.

| | |
|---------------------------------|------------------------|
| TYPE OR PRINT NAME OF PRESIDENT | SIGNATURE OF PRESIDENT |
|---------------------------------|------------------------|

RULINGS AND INSTRUCTIONS RELATIVE TO THE LAND-GRANT ACT OF 1862 (OE Form 1275)

This report on the 1862 land-grant fund is called for under a decision of the Assistant Attorney General, pertaining to the acts of July 2, 1862, August 30, 1890 and March 4, 1907.

In conformity therewith, the attention of State legislatures, State officers, and officers of institutions receiving the benefit of these acts is respectfully called to the following provisions:

1. The act of July 2, 1862 (12 Stat. 503), as amended by the act of April 13, 1926 (44 Stat. 247), provides that the money derived from the sale of lands and from the sale of land scrip granted to the States for the establishment and maintenance of colleges of agriculture and mechanic arts shall be invested at a fair and reasonable rate of return to be fixed by the State legislatures and shall constitute a perpetual fund.

2. The income from such investments shall be regularly applied without diminution to the endowment, support, and maintenance of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts.

It is held that the proceeds from rentals, sale of timber rights, water rights, or other privileges, and interest on deferred payments of purchase money, partake of the same character as the income from invested funds and must be devoted, without diminution, to the purposes as set forth above.

It is held that instruction in the industries for women is included in instruction in agriculture and the mechanic arts.

3. The income from this fund is not a fiscal year or limited fund. It must remain forever at the disposal of the institution entitled to the benefit of the fund. Nor may it ever be converted into general State funds or used for general State purposes. There can be no default to the State by the institution.

4. It is held that the act of 1890 (26 Stat. 417) with the amendment of 1907 (34 Stat. 1281) is supplementary to the act of 1862 (12 Stat. 503); therefore any default in the provisions of the act of 1862 renders the State liable to noncertification for the annual installments of the funds appropriated by the acts of 1890 and 1907.

5. In order that the Department of Health, Education, and Welfare, through the Commissioner of Education, may be able to ascertain whether or not the States are complying with the provisions of the act of 1862, the institutions receiving the benefits of that act are required to submit a statement in detail of the disbursements of the annual income received by them under said act.

6. The only restriction placed by the act of Congress of July 2, 1862, upon the expenditure of the income derived from the sale of public lands granted for the endowment of colleges of agriculture and the mechanic arts is that no part of such income may be expended for the purchase, erection, preservation, or repair of any building or buildings, nor may this income be used for the purchase of land.

RULINGS AND INSTRUCTIONS RELATIVE TO SUPPLEMENTARY MORRILL FUNDS

INTEREST MONEY. Interest accruing upon all Supplementary Morrill funds... is interest accruing to the United States and should be covered into the U.S. Treasury as miscellaneous receipts (ruling of Comptroller General, January 16, 1933). The person duly designated to receive the funds from the Federal Government is responsible for the accounting of such interest as may be credited to the deposit account by the bank in which the deposit account is maintained.

BALANCE. Funds annually appropriated must be expended during the fiscal year for the purposes specified by the acts and cannot be allowed to accumulate in the form of an unexpended balance. If however, the condition of the institution is such that the funds cannot be spent advantageously, an unexpended balance will be allowed to remain over to the following year, when it is shown that plans are prepared for the eventual use, not only of all unexpended balances, but also of the regular annual instalments.

ANNUAL REPORT. Treasurer's reports are required on or before September 1. (Act of August 30, 1890.) Two copies should be sent to the U.S. Commissioner of Education who will forward one copy to the Secretary of Agriculture.

Attention is called to the requirements of the acts of Congress: Morrill Act of August 30, 1890 (26 Stat. L., p. 417), Nelson Amendment of March 4, 1907 (34 Stat. L., p. 1281), Bankhead-Jones Act of June 29, 1935 (Public Act No. 182, Title II, Sec. 22), in aid of colleges of agriculture and mechanic arts respecting the annual reports of the treasurers of said institutions to the Secretary of the Department of Health, Education, and Welfare and the Secretary of Agriculture. Attention is called also to certain decisions respecting the disbursement of the funds authorized by the said acts. (See below.) The classification of subjects under the seven schedules (A to (i) must be adhered to in preparing annual reports.

SUBJECT MATTER FIELDS ALLOWED. These Federal funds are to be applied only to instruction in—

- A. **Agriculture.**—Agriculture, horticulture, forestry, agronomy, animal husbandry, dairying, veterinary science, poultry industry, apiculture, etc.
- B. **Mechanic arts.**—Mechanical, civil, electrical, irrigation, mining, marine, railway, and experimental engineering; textile industry, farm mechanics, architecture, machine design, mechanical drawing, ceramics, stenography, typewriting, printing, shop work, drawing, etc.
- C. **English language.**—English language, English literature, composition, rhetoric, oratory, etc.
- D. **Mathematical sciences.**—Mathematics, bookkeeping, astronomy, etc.

E. **Natural and physical sciences.**—Chemistry, physics, biology, botany, zoology, geology, mineralogy, metallurgy, entomology, physiology, bacteriology, pharmacy, physical geography, meteorology, etc.

F. **Economic sciences.**—Political economy, home economics, commercial geography, sociology, etc.

G. **Special preparation of teachers.**—Subjects with special reference to agriculture, mechanic arts, and home economics: history of industrial education, methods and special instruction for teachers. All or a part of the funds provided by the act of March 4, 1907, may be used "for providing courses for the special preparation of instructors for teaching the elements of agriculture and mechanic arts." It is held that this language authorizes expenditures for instruction (a) in history of agriculture and industrial education, (b) in methods of teaching agriculture, mechanic arts, and home economics, and (c) for special aid and supervision given to teachers actively engaged in teaching agriculture, mechanic arts, and home economics in public schools.

Fields NOT authorized. No part of the above-mentioned funds may be used for any form of extension work, and all instruction must be given at the institutions receiving these funds, except that a reasonable portion of the fund provided by the act of 1907 may be used for the instruction of teachers in agriculture, mechanic arts, and domestic science at summer schools, teachers' institutes, and by correspondence, and for the supervision and direction of teachers of these subjects in high schools.

Expenditures are NOT authorized for courses in—

| | |
|----------------------|-----------------------------------|
| Ancient languages | Methods of teaching |
| Civil government | Military science and tactics |
| Ethics | Modern languages (except English) |
| Extension work | Pedagogy |
| History | Philosophy |
| History of education | Psychology |
| Logic | Research |

SALARIES. These funds may be used for the payment of salaries of instructors in the allowed subjects only.

When an administrative officer also gives instruction in any of the branches of study mentioned in the act of August 30, 1890, or when an instructor gives such instruction and also devotes part of his time to giving instruction in branches of study not mentioned in the said act, ONLY A PART of such person's salary proportionate to the time devoted to giving instruction in the branches of study mentioned in the said act can be charged to these funds. In the division of time between instructional and other work, one hour of instruction shall be regarded as equivalent to two hours of administrative, supervisory, or experiment-station work.

Salaries not authorized. The salaries of purely administrative officers, such as treasurers, presidents, secretaries, bookkeepers, janitors, watchmen, superintendents, foremen, matrons, unskilled laborers, assistants in shops, laboratories, and fields; experiment-station staff; instructors employed in research work or in collecting, classifying, and arranging specimens, collections, or exhibits; instructors in philosophy, psychology, ethics, logic, history, civil government, pedagogy, military science and tactics, and ancient and modern languages (except English); and personnel employed in extension work cannot be charged to these funds.

Nor may the funds be used for the salaries of instructors improperly trained or incompetent for the positions they are supposed to fill.

FACILITIES. Purchases are authorized from these funds for apparatus, machinery, textbooks, reference books, stock, and material used in instruction, or for purposes of illustration in connection with any of the allowed subject-matter fields.

In case of machinery (such as boilers, engines, pumps, etc.) and farm stock, which are made to serve for both instructional and other purposes, the Federal funds may be charged with only an EQUITABLE PORTION of the cost of said machinery and stock.

Facilities not authorized. No portion of said money's shall be applied directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings (Act of 1890, sec. 3), nor for the permanent improvement to buildings, grounds, and farms, such as clearing, draining, and fencing of land, nor for the heating or lighting of buildings, nor for musical instruments, military equipment, furniture, cases, shelving, desks, blackboards, tables, lockers, etc.

The purchase of land is not allowable. (Ruling March 1891.)

APPENDIX N

Telephone Survey Methodology

Telephone interviews were conducted during December 1979 with senior officials (presidents, deans of agriculture, administrators of resident instruction, and other administrators of similar rank) at 33 land-grant institutions. These institutions had been randomly selected from a universe of 71 such institutions, using a table of random numbers, from the following four strata:

- (1) 17 historically black institutions with a mean enrollment of approximately 4,000;
- (2) 12 schools with an undergraduate student body of less than 11,000 (mean = 7,000);
- (3) 27 schools with 11,000 - 35,000 undergraduates (mean = 18,700); and,
- (4) 11 schools with more than 35,000 undergraduate students (mean = 53,100).

Four institutions were omitted from the universe due to their unique characteristics: University of Guam, University of Hawaii, University of Puerto Rico, and College of Virgin Islands. Approximately 50 percent of the schools were contacted in each of the four categories.

Telephone interviews were conducted by the project staff as follows:

- (1) A telephone call was placed to the president or other senior official at each institution describing the purpose of the Bankhead-Jones Study, explaining the reason for the telephone interview, and requesting the name of the person with the most knowledge about these matters.
- (2) Contact was made with the suggested person, who in some cases was the initial contact. When necessary, the purpose of the study and reason for the interview were explained. After answering questions about the study, a time for the actual interview was set.
- (3) Interviewers promised anonymity to each respondent as follows:

None of the information we will discuss will be attributed to you personally or to your specific institution. We are trying to build a general picture of Bankhead-Jones activity and our report to Congress will be in that style.

Frank responses were encouraged.

- (4) Interviews ranged from approximately 20-45 minutes in length, following the interview schedule in Appendix R.

By and large, the interview plan was carried out according to expectations. The final list of interviews (Appendix Q) included 27 of the 33 schools originally selected by random numbers and 6 replacements. Replacement schools were also selected by random numbers.

APPENDIX O

List of Respondents to Telephone Survey

| <u>Institution</u> | <u>Name of Official</u> | <u>Title</u> |
|--------------------------------------|-------------------------|---|
| Alabama A&M University | R. D. Morrison | President |
| University of Alaska | J. Barton | President |
| University of Arkansas | C. Oxford | V.P. Academic Affairs |
| Colorado State University | A. R. Chamberlain | President |
| University of Connecticut | K. Wilson | V.P. Academic Affairs |
| Florida A&M University | F. Olds | Director, Division of Sponsored Research |
| University of Illinois | R. Parker | Assoc. V.P., Financial Affairs |
| Kansas State University | D. Beatty | V.P., Business Affairs |
| University of Kentucky | E. Carter | Budget Director |
| Louisiana State University | Q. Coco | Vice Chancellor for Business Affairs |
| Southern University | J. Stone | President |
| University of Maryland-Eastern Shore | W. P. Hytche | Chancellor |
| University of Massachusetts | G. Beatty | V.P. Business & Finance |
| University of Minnesota | A. Link | Acting V.P. Academic Affairs |
| Alcorn State University | W. Washington | President |
| | O. W. Moses | Business Manager |
| Mississippi State University | C. Lindley | Dean, College of Agriculture & Home Economics |
| University of Missouri | F. George | V.P. Academic Affairs |
| Montana State University | T. Nopper | Director of Administration |
| University of New Hampshire | J. Chase | Interim President |
| New Mexico State University | A. S. Pope | Dean, College of Agriculture & Home Economics |
| Cornell University | J. Spencer | Vice Provost, Budgeting & Planning |
| North Carolina A&T University | L. C. Dowdy | Chancellor |
| North Carolina State University | G. Worsley | Chancellor for Finance and Business |
| Langston University | E. L. Holloway | President |
| Oregon State University | R. W. MacVicar | President |
| University of Rhode Island | G. Donovan | Dean, College of Resource Development |
| Clemson University | M. Barnett | V.P. Business & Finance |
| Tennessee State University | F. Humphries | President |
| University of Tennessee | W. Lambert | Director of Federal Affairs |
| Prairie View A&M University | A. I. Thomas | President |

| <u>Institution</u> | <u>Name of Official</u> | <u>Title</u> |
|---|-------------------------|---|
| Texas A&M University University of Vermont | J. Miller W. Kelley | President Assoc. Dean of Instruction College of Agriculture |
| Washington State University | W. Beasley | Executive V.P. |

APPENDIX P

Telephone Interview Schedule and Tabulation of Responses

- 1A. Do the funds come at an appropriate time as far as your budget process is concerned?

| | |
|---|----|
| Bankhead-Jones funds arrived too late for normal inclusion in the budget process. | 15 |
| Bankhead-Jones funds arrived at a satisfactory time. | 14 |
| No response was given due to lack of information. | 3 |
| Bankhead-Jones funds sometimes arrived on time and sometimes too late. | 1 |

- 1B. When do you receive the funds? 1/

| | |
|---|----|
| No response was given due to lack of information. | 10 |
| Bankhead-Jones check arrived between January and March. | 14 |
| Bankhead-Jones check arrived between April and June. | 9 |
| Bankhead-Jones check arrived in July or later. | 5 |

2. Do you distinguish these funds from other operating funds in any special way?

| | |
|---|----|
| Bankhead-Jones funds were not distinguished from other funds when allocated for expenditures. | 18 |
| Bankhead-Jones funds were completely differentiated from other funds. | 8 |
| Bankhead-Jones funds and other money were placed into special accounts. | 7 |

3. Are these funds usually targeted for special purposes or are they used as part of the general operating budget?

| | |
|---|----|
| Bankhead-Jones funds were used as part of the general operating budget. | 21 |
| Bankhead-Jones funds were targeted for specific purposes. | 10 |
| Bankhead-Jones funds were used both ways. | 1 |
| No response was given due to lack of information. | 1 |

1/ Responses add to more than 33 due to some institutions' reporting a variety of times when checks arrived.

4A. What were the funds used for during the 1978-79 academic year?

| | |
|---|---|
| Bankhead-Jones funds were used for salary support. | 6 |
| Bankhead-Jones funds were used for instructional equipment. | 3 |
| Bankhead-Jones funds were used for library acquisitions. | 2 |
| Bankhead-Jones funds were used for critical supplies. | 1 |
| Bankhead-Jones funds were used for outside speakers. | 1 |
| Bankhead-Jones funds were used for conferences. | 1 |

4B. (If targeted) What were the funds used for during the previous four years?

| | |
|---|---|
| Bankhead-Jones funds were used in about the same way for the past several years. | 9 |
| Bankhead-Jones funds were used to supplement the teaching budget in 1976-77 but since 1977-78 the funds have been used to purchase equipment, expand the library, and other non-instructional pursuits. | 1 |

4C. (If targeted) Are they usually used in about the same way each year or are they more commonly redirected to different areas?

| | |
|---|---|
| Bankhead-Jones funds were used in about the same way for the past several years. | 9 |
| Bankhead-Jones funds were used to supplement the teaching budget in 1976-77 but since 1977-78 the funds have been used to purchase equipment, expand the library, and other non-instructional pursuits. | 1 |

5. How is the decision made about the use of the Bankhead-Jones funds?

| | |
|---|----|
| They were used in the same way for years. | 14 |
| Decision was made by a committee. | 11 |
| Decision was made by the President of the Institution. | 7 |
| Decision was made by the Vice-President of the Institution. | 1 |

6. Can you tell me about some of the specific ways the funds have had an impact on your campus?

| | |
|---|----|
| Bankhead-Jones grant was used for salary support and the impacts included attraction of more capable faculty, improvement in the level of instruction, reduction in number of students per class, increase in the number or breadth of course offerings, and support for areas of instruction which were lagging behind other institutions. | 17 |
| No response was given due to lack of information. | 6 |
| Bankhead-Jones grant was used to purchase supplies. | 7 |
| Funds went into general budget, so impact was not known. | 3 |
| Bankhead-Jones grant was used to bring in outside speakers and support conferences. | 1 |

7. What activities were supported by these funds that otherwise would not have been supported?

| | |
|--|----|
| Could not be specific; indicated general quality would suffer. | 9 |
| No activities would be dropped; would reallocate resources to continue these programs. | 5 |
| Cited specific activities | 18 |
| Faculty salaries | 11 |
| Supplies and equipment | 3 |
| Library acquisitions | 2 |
| Visiting faculty | 1 |
| Laboratory | 1 |

8. What is your opinion about the existing guidelines for spending the Bankhead-Jones funds?

| | |
|---|----|
| No objection was mentioned about the guidelines. | 13 |
| Flexibility of the existing guidelines was cited as extremely useful. | 10 |
| No response was given due to lack of information. | 8 |
| Objection to the restriction on the promotion of agriculture was mentioned. | 1 |
| Suggestion was made that the guidelines be more specific. | 1 |

9. If you did not receive any Bankhead-Jones funds, are there any specific courses of action you could take to compensate for the loss?

| | |
|---|----|
| No recourse was mentioned - programs would suffer. | 17 |
| Additional funds from the State legislature would be requested. | 9 |
| Tuition or student fees would be raised. | 4 |
| Existing budget would be used. | 3 |

10. If the funds were restricted to meeting agricultural needs in the area of instruction, what are some of the uses they might be put to on your campus?

Reallocation of the budget and shift of some State or other money from agriculture to the losing areas. 14

Specific uses for agricultural instruction were named, such as initiate or expand pest management and aquaculture programs, buy agricultural equipment, and expand present allocations in existing areas. 9

Bankhead-Jones funds were already used exclusively for meeting agricultural needs. 5

The restriction of the funds for only agricultural instruction would create problems due to budget inflexibility. 5

11. Is there anything about the way the Federal Government administers the program or its record-keeping requirements which you think could be improved?

The program is fine. 26

The suggestions for improvement were the following: 7

- "Don't tie the money to specific applications."
- "Grant should be received earlier and it should be keyed to inflation."
- "The accountability forms need improvement. Remove the uncertainty and improve the timing."
- "The main problem is how much will be received and when."
- "No problems except timing and uncertainty."
- "Would like a larger check and would like it on time."
- "It is most effective when Federal money comes directly to the institution."

12. Are there any other aspects of the program which you think should be changed?

Answers to this question were incorporated into the categories for earlier questions.

13. Are there issues connected with the Bankhead-Jones Program that we should be sure to analyze?

| | |
|---|----|
| The funds should be increased. | 18 |
| The guidelines for allocating the funds should remain flexible. | 12 |
| The funds or notification of the funds should arrive on the campuses earlier. | 10 |
| The grants, though small, are very important. | 9 |
| The Federal recognition of the land-grant institutions is important. | 7 |
| Bankhead-Jones funds should come directly to the institutions. | 4 |

Other formats for the program were discussed. One respondent cautioned against putting the grants on a competitive basis because large institutions have more resources and would get a disproportionate share. Another suggested assuring the funding for a set period of time, say, 10 years. A third suggested doubling the present amounts given to the least well-developed institutions for a period of 10-15 years so they can catch up with the others. 3

New applications were mentioned. "Expand the funding guidelines to cover new areas such as small farm technology in the U.S. for application in developing countries." "Expand the guidelines to include a modern definition of applied agriculture such as a French program so we can deal with African students." 2

Appendix Q

Examples of Comments by Officials from Land-Grant Institutions about the Bankhead-Jones Program

This appendix reports examples of comments on the Bankhead-Jones program received through telephone interviews and mail questionnaires from officials at land-grant institutions. The body of this report summarizes the views expressed. As was noted in the body of the report, presentation of these views should not be considered an endorsement. The remarks of some campus officials raise questions which have not been examined within the scope of this review. The purpose of presenting these views is to convey how land-grant officials view Bankhead-Jones.

The significance of Bankhead-Jones funds was expressed in a variety of contexts. For example, when asked at the end of the telephone survey, "Are there any issues connected with the Bankhead-Jones program that we should be sure to analyze?", nine of the interviewees spontaneously volunteered their view that the grants, though small, were nevertheless very important. One respondent put it this way:

Although in total they are but a small part of the overall budget.....they are crucial in the area where applied.

Another seven saw current funding not so much for its intrinsic dollar value as for its symbolic worth, i.e. Federal recognition of the land-grant system and the Federal-land-grant partnership.

The flexibility of funding was often seen as the primary feature of the programs. One university president put the matter this way:

These types of resources are so extremely limited that the ability to use the flexibility inherent in the Bankhead-Jones funds is crucial to the continuation of this effort on the part of a university located in a fairly remote area of the United States to maintain the overall quality of its program.

An official from a medium-sized eastern university elaborated upon this point.

...the Bankhead-Jones Act funds (and the Morrill-Nelson funds) are the only funds received by land-grant colleges and universities in which restrictions are sufficiently broad to be used with wise discretion by individual institutions. Much Federal financial aid is narrowly restrictive, as are Federal research training contracts and grants. There is a very high proportion of Federal assistance given with "strings" attached that permits no individuality or discretion at the university level. Most of the strength in higher education of this nation has been built on enabling individual institutions to decide their own program priorities.

Ten mail questionnaire respondents indicated that their States had imposed tight fiscal restrictions in recent times and that any cut or addition under such circumstances would be significant to them, if quality and services were to be maintained at current levels or improved. The president of a large western institution said the legislators in his State had indicated several times that they are willing only to provide funds at current levels. The term "problematical" was used to describe the outlook for substitute funds from another legislature.

Nine institutions indicated that a loss of Bankhead-Jones funds would mean larger classes, loss of faculty, and higher tuition. For example, a large midwestern institution responded to the mail questionnaire, saying that:

If these funds were eliminated, we'd have to cut our budgets and do things in a less desirable way, or with less excellence or not at all. Specifically, elimination of these funds would cause us to:

- a) increase the number of students in several of our lecture or laboratory courses.
- b) eliminate or reduce some of our student field trips.
- c) discontinue replacement of some of our worn out or obsolete equipment
- d) curtail purchases of technologically more up-to-date equipment.
- e) reduce our support to graduate students which results in fewer numbers of future scientists being trained.

Another midwestern institution stated that:

The (amount) from both funds is allocated each year to five departments in the College of Engineering: Chemical, Civil Electrical, Mechanical and Engineering Mechanics. All funds are used as part of the salary budget. The funds are the equivalent of 8.5 FTE professors or more than half the number of FTE allocations to graduate education in these departments (15.6). Were these funds not available, it would not be possible to sustain a quality graduate program in our College of Engineering. Were we to sustain a loss of graduate programs the quality of the undergraduate program would also be seriously affected. The Federal grant funds from these two acts therefore, has a major impact on the quality of our engineering programs.

A northern university administrator explained the impact of a funds cut as follows:

...we concede that these funds comprise only about 1 percent of our total Education and General Unrestricted Revenue. However, because of nonfunded enrollment growth, inflation and limited State resources, (the university) currently faces a very tight financial situation and a 1 percent drop in revenue would greatly compound existing problems. At this time we cannot predict what program would be terminated, but only that the initial effect would be serious....

Two mail questionnaire respondents indicated that they would not be able to convince the State to replace any loss in Bankhead-Jones or Morrill-Nelson support. One school in the Northeast reported that because of the tightness of the current budget, "the operations at the University would simply have to be reduced by about \$200,000."

A number of comments regarding funding dwelt upon the symbolic value of Bankhead-Jones funds, their importance regarding access to higher education and equality of educational opportunity, and the relation between land-grant mission and current national priorities. Regarding their symbolic importance, an official at an institution in the Mississippi Valley region cautioned:

The symbolic value of the funds should also not be overlooked. This funding reflects a national commitment to an idea about higher education and, while the amount of money is no longer large, the long-term impact on perceptions resulting from termination of that commitment should be carefully examined. There are likely to be far greater consequences than any dislocation caused by loss of the money.

The land-grant system was created to foster equal educational opportunity. Officials at one large State university took cognizance of this heritage as follows:

The use of these funds provides a better chance to minimize fee increases and thus preserves access to more students who may otherwise be priced out of the educational market. However, loss of funds such as Bankhead-Jones in conjunction with other cutbacks to an already austere budget, could make it necessary to increase student charges with the consequence that for some prospective students, the educational price tag would be too high.

An official from the northern plains commented on the role land-grant institutions have played in the Nation's technological progress:

In 1893 (the university) was established almost entirely with Federal land-grant funds. Eighty-seven years later its land-grant support provides only a small fraction of institutional costs. In 1893, the average American farmer produced enough farm products to feed approximately 5 people. Today he produces enough to feed 58 people. We feel the research and instruction provided by land-grant institutions figures heavily in this productivity increase. It has even been said that, "This (Morrill Act of 1862) was perhaps the greatest contribution to educational and technical development the world has ever seen."

Has the need ended for such support? We think not. Farmers today must learn to deal with a rapidly changing energy situation. We now realize that widespread dependence on high-yielding hybrid crops carries with it the potential for disastrous widespread crop diseases. Transportation costs and shifting world markets make it more difficult than ever for the average farmer to predict and supply the nation's demand for his products. These changing conditions call for the continued land-grant education and research for today's students and tomorrow's farmers, the suppliers of our basic necessities.

A neighboring State university official also reduced Bankhead-Jones and Morrill-Nelson funds to current national priorities.

As the twentieth century ends, the efficient production and utilization of food and fiber should become, as it was at the beginning of the century, a vital national concern. Forty-five years ago (this university) was more strongly supported by the federal government than by the state. This support came as a part of the recognition of the importance of the agricultural industry to the nation. This policy was so successful, that food is cheap and readily available in the United States. There appeared to be no need to continue support (of) instruction in agriculture and related areas. With the shortage of petroleum energy sources, with world hunger a reality, American agriculture must perform yet another miracle - become more energy efficient while providing not only more foodstuffs, but much of the raw material for alternative energy sources. Strong support for instruction in "agriculture and mechanic arts" must once again become a key national policy.

APPENDIX R

Other Data Sources

This appendix describes data sources and measures used in the present report other than those reported in Appendixes J-Q.

Higher Education General Information Survey

Data on degrees and enrollment for institutions of higher education come from the Higher Education General Information Survey (HEGIS), conducted annually by the National Center for Education Statistics, U.S. Department of Education. This survey is sent to all institutions of higher education which are accredited or preaccredited by an accrediting agency recognized for such a purpose by the Commissioner of Education, U.S. Office of Education. The text below provides further information on which institutions participated in the HEGIS surveys used in this report. ^{1/}

Fall Enrollment 1978. Of the 3,173 institutions listed in the Education Directory, Colleges and Universities: 1978-79, ^{2/} 3,170 completed the fall 1978 enrollment form. All 117 campuses eligible for Bankhead-Jones and Morrill-Nelson funds (listed in Appendix K) furnished data on total enrollment. As for enrollment specifically in the fields of agriculture and engineering, the number of land-grant campuses supplying information totaled 96 and 104 respectively. Those campuses are noted in the listing below. In the compilation of 1978 fall enrollment data for this study, information on four land-grant campuses was inadvertently omitted. Missing are 58,357 students, including 3,875 enrolled in engineering. Land-grant enrollment statistics represent 113 campuses unless otherwise noted.

Degrees Awarded in 1977-78. Of the 3,130 institutions listed in the Education Directory, Colleges and Universities: 1977-78, ^{3/} 1,829 furnished data on bachelor's, master's, and doctor's degrees for the 1977-78 academic year. Of the 117 land-grant campuses, such degree data were supplied by 95. They are designated in the listing below. In the compilation of 1977-78 degree data for this study, information on four land-grant campuses was inadvertently omitted. Missing are 8,278 bachelor's degrees, including 374 in engineering; 2,322 master's degrees, including 205 in engineering; and 707 doctor's degrees, including 60 in engineering. Tabulations for land-grant institutions represent 91 campuses unless otherwise noted.

^{1/} A few land-grant multicampus institutions did not list branch campuses separately in the Education Directory. In those cases, the HEGIS information pertains to all campuses and branches.

^{2/} Published by the National Center for Education Statistics, U.S. Department of Health, Education, and Welfare (Washington, D.C.: 1979).

^{3/} Published by the National Center for Education Statistics, U.S. Department of Health, Education, and Welfare (Washington, D.C.: 1978).

Designation of Land-Grant Universities by the Manpower Assessment Project

The Manpower Assessment Project of the U.S. Department of Agriculture directed by Dr. Kyle Jane Coulter has compiled trend data on degrees awarded by land-grant institutions in agriculture for 1971-72 through 1976-77, using HEGIS data. That project's designation of land-grant institutions differs somewhat from that shown in Appendix K. The listing that follows shows the manpower project's designation.

| State | Institution | Participation in HEGIS | | | Land-grant designation |
|----------|---|------------------------------------|------------------------------------|-----------------------------|------------------------|
| | | Agriculture enrollment, Fall, 1978 | Engineering enrollment, Fall, 1978 | Degrees awarded, 1/ 1977-78 | |
| Alabama | Alabama Agriculture and Mechanical University | P | P | P | D |
| | Auburn University Main Campus | P | P | P | D |
| | Auburn University at Montgomery | N | N | P | D |
| Alaska | University of Alaska Fairbanks Campus | P | P | P | BJ |
| | University of Alaska Anchorage Campus | N | N | P | BJ |
| | University of Alaska Juneau Southeastern Senior College | N | N | P | BJ |
| | University of Arizona | P | P | P | D |
| Arizona | University of Arkansas at Little Rock | P | P | P | D |
| | University of Arkansas Main Campus | P | P | P | D |
| | University of Arkansas Medical Sciences Campus | N | N | P | D |
| | University of Arkansas at Monticello | P | P | P | D |
| | University of Arkansas at Pine Bluff | P | P | P | D |
| Arkansas | University of California at Berkeley | P | P | P | D* |
| | University of California at Davis | P | P | P | D |
| | University of California at Irvine | P | 2 | 2 | D |
| | University of California at Los Angeles | P | 2 | 2 | D |
| | University of California at Riverside | P | P | P | D |
| | University of California at San Diego | P | 2 | 2 | D |
| | University of California at Santa Barbara | N | P | P | D |
| | University of California at Santa Cruz | P | 2 | 2 | D |
| | Colorado State University | P | P | P | D |
| | Connecticut University of Connecticut | P | P | P | D |
| Delaware | Delaware State College | P | P | P | D |
| | University of Delaware | P | P | P | D |

Notes appear at the end of listing.

| State | Institution | Participation in HEGIS | | | Degrees awarded, 1977-78 | <u>1/</u> | Land-grant designation |
|----------------------|---|------------------------------------|------------------------------------|--------|--------------------------|-----------|------------------------|
| | | Agriculture enrollment, Fall, 1978 | Engineering enrollment, Fall, 1978 | P | | | |
| District of Columbia | University of the District of Columbia | | | P | | N | D |
| Florida | Florida Agricultural and Mechanical University University of Florida | | | P P | P P | P P | D D |
| Georgia | Fort Valley State College University of Georgia | | | P P | P P | P P | D D |
| Guam | University of Guam | | | P | N | P | D |
| Hawaii | University of Hawaii at Hilo University of Hawaii at Manoa | | | P P | P P | P P | BJ D |
| Idaho | University of Idaho | | | P | P | P | D |
| Illinois | University of Illinois Urbana Campus | | | P | P | P | L |
| Indiana | Purdue University Main Campus | | | P | P | P | D* |
| Iowa | Iowa State University of Science and Technology | | | P | P | P | D |
| Kansas | Kansas State University of Agriculture and Applied Science | | | P | P | P | D |
| Kentucky | Kentucky State University University of Kentucky | | | N P | P P | P P | D D |
| Louisiana | Louisiana State University and Agricultural and Mechanical College, Baton Rouge Southern University Agricultural and Mechanical College, Baton Rouge | | | P P | P P | P P | D D |
| Maine | University of Maine at Orono | | | P | P | P | D* |
| Maryland | University of Maryland, College Park University of Maryland, Eastern Shore | | | P P | P P | P P | BJ D |

| State | Institution | Participation in HECIS | | Degrees awarded 1977-78 | Land-grant designation |
|---------------|---|--|--|----------------------------|---------------------------|
| | | Agriculture enrollment, Fall, 1978 | Engineering enrollment, Fall, 1978 | | |
| Massachusetts | Massachusetts Institute of Technology | N | P | P | BJ |
| | University of Massachusetts Amherst Campus | P | P | P | D |
| | University of Massachusetts Boston Campus | N | N | P | D |
| | University of Massachusetts Medical School at Worcester | N | N | N | D |
| Michigan | Michigan State University | P | P | P | D |
| Minnesota | University of Minnesota at Duluth | P | P | P | D |
| | University of Minnesota at Minneapolis and Saint Paul | P | P | P | D* |
| | University of Minnesota at Morris | P | P | P | D |
| | University of Minnesota Technical College at Crookston | N | N | N | D |
| | University of Minnesota Technical College at Waseca | N | N | N | D |
| | Alcorn State University | P | N | P | D |
| | Mississippi State University | P | P | P | D |
| Missouri | Lincoln University | P | N | P | D |
| | University of Missouri at Columbia | P | P | P | D* |
| | University of Missouri at Rolla | N | P | P | D |
| Montana | Montana State University | P | P | P | D |
| Nebraska | University of Nebraska at Lincoln | P | P | P | D* |
| Nevada | University of Nevada at Las Vegas | N | P | P | D |
| | University of Nevada at Reno | P | P | P | D |
| New Hampshire | University of New Hampshire | P | P | P | D* |
| New Jersey | Rutgers The State University of New Jersey at Camden | P | P | P | D |
| | Rutgers The State University of New Jersey at New Brunswick | P | P | P | D |

| State | Institution | Participation in HEGIS | | | Degrees awarded, 1/ 1977-78 | Land-grant designation |
|----------------|--|---------------------------------------|---------------------------------------|---|--------------------------------|---------------------------|
| | | Agriculture enrollment, Fall, 1978 | Engineering enrollment, Fall, 1978 | P | | |
| New Mexico | Rutgers The State University of New Jersey at Newark | P | P | P | P | D* |
| | New Mexico State University Main Campus | P | P | P | P | D* |
| New York | Cornell University Endowed Colleges | P | P | P | P | D |
| | Cornell University Statutory Colleges | P | P | P | P | D |
| North Carolina | North Carolina Agricultural and Technical State University | P | P | P | P | D |
| | North Carolina State University at Raleigh | P | P | P | P | D |
| North Dakota | North Dakota State University Main Campus | P | P | P | P | D* |
| Ohio | Ohio State University Main Campus | P | P | P | P | D* |
| Oklahoma | Langston University | P | P | P | P | D |
| | Oklahoma State University Main Campus | P | P | P | P | D |
| Oregon | Oregon State University | P | P | P | P | D |
| Pennsylvania | Pennsylvania State University at Allentown | P | P | N | N | D |
| | Pennsylvania State University at Altoona | P | P | N | N | D |
| | Pennsylvania State University at Beaver | P | P | N | N | D |
| | Pennsylvania State University Behrend College | P | P | P | P | D |
| | Pennsylvania State University at Berks | P | P | N | N | D |
| | Pennsylvania State University at Capitol | N | P | P | P | D |
| | Pennsylvania State University at Delaware | P | P | N | N | D |
| | Pennsylvania State University at Du Bois | P | P | N | N | D |
| | Pennsylvania State University at Fayette | P | P | N | N | D |
| | Pennsylvania State University at Hazleton | P | P | N | N | D |
| | Pennsylvania State University Main Campus at University Park | P | P | P | P | D* |

| State | Institution | Participation in HEGIS | | | Land-grant designation |
|----------------|---|------------------------------------|------------------------------------|-----------------------------|------------------------|
| | | Agriculture enrollment, Fall, 1978 | Engineering enrollment, Fall, 1978 | Degrees awarded, 1/ 1977-78 | |
| Pennsylvania | State University at McKeesport | P | P | N | D |
| Pennsylvania | State University at Mont Alto | P | P | N | D |
| Pennsylvania | State University at New Kensington | P | P | N | D |
| Pennsylvania | State University, Ogontz Campus | P | P | N | D |
| Pennsylvania | State University Radnor Center for Graduate Studies | P | P | P | D |
| Pennsylvania | State University at Schuylkill | P | P | N | D |
| Pennsylvania | State University at Shenango Valley | P | P | N | D |
| Pennsylvania | State University at Wilkes-Barre | P | P | N | D |
| Pennsylvania | State University at Worthington-Scranton | P | P | N | D |
| Pennsylvania | State University at York | P | P | N | D |
| Puerto Rico | University of Puerto Rico at Mayaguez | P | P | P | D |
| Rhode Island | University of Rhode Island | P | P | P | D |
| South Carolina | Clemson University South Carolina State College | P N | P P | P P | D D |
| South Dakota | South Dakota State University | P | P | P | D |
| Tennessee | Tennessee State University University of Tennessee at Knoxville | P P | P P | P P | D L |
| Texas | Prairie View Agricultural and Mechanical University Texas A&M University Main Campus | P | P | P | D* |
| Utah | Utah State University | P | P | P | D |

Notes appear at the end of listing.

| <u>State</u> | <u>Institution</u> | <u>Participation in HEGIS</u> | <u>Agriculture enrollment, Fall, 1978</u> | <u>Engineering enrollment, Fall, 1978</u> | <u>Degrees awarded, 1977-78</u> | <u>Land-grant designation</u> |
|----------------|--|-------------------------------|---|---|---------------------------------|-------------------------------|
| Vermont | University of Vermont and State Agricultural College | P | P | P | P | D |
| Virginia | Virginia Polytechnic Institute and State University | P | P | N | P | D |
| | Virginia State College | P | P | N | P | BJ |
| Virgin Islands | College of the Virgin Islands | P | P | P | P | D |
| Washington | Washington State University | P | P | P | P | D |
| West Virginia | West Virginia University | P | P | P | P | D |
| Wisconsin | University of Wisconsin at Madison | P | P | P | P | D* |
| Wyoming | University of Wyoming | P | P | P | P | D |

P Participated in the Higher Education General Information Survey (HEGIS).
 N Did not participate in the designated Higher Education General Information Survey (HEGIS), or did not enroll in designated field.

D Designated as a land-grant institution by the Bankhead-Jones review and the Manpower Assessment Project, U.S. Department of Agriculture.

BJ Designated as a land-grant institution only by Bankhead-Jones review.

MP Designated as a land-grant institution only by the Manpower Assessment Project. Tuskegee Institute, which does not appear on this list, falls in this category.

* Manpower project designates other campuses of this institution as land-grant which the Bankhead-Jones review does not.

1/ Refers to degrees at the bachelor's, master's and doctor's levels.

2/ Four land-grant institutions' degrees were inadvertently not tallied, including the University of California at Irvine, at Los Angeles, at San Diego, and at Santa Cruz.

Enrollment Size

Institutions were classified into three groups on the basis of their full-time-equivalent enrollment for 1978, as reported in item 5 of the mail questionnaire (Appendix M). The groups are as follows:

- (1) under 10,000 students,
- (2) 10,000 - 20,000, and
- (3) over 20,000.

Where information was lacking, HEGIS 1978 fall enrollment was used, with three part-time students being equated to one full-time student. The size designation appears in the listing below.

Region

Institutions have been classified by region according to a classificatory schema used by the U.S. Department of Agriculture. The regional classification appears in the listing below.

Northeast: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, West Virginia.

North Central: Alaska, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, North Dakota, Nebraska, Ohio, South Dakota, Wisconsin.

South: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, Virgin Islands, Virginia.

West: Arizona, California, Colorado, Guam, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

Size and regional classification of land-grant institutions, by State

| State | Name of Institution | Size | Region |
|----------------------|---|-----------|-----------|
| | | <u>1/</u> | <u>2/</u> |
| Alabama | : Alabama Agricultural and Mechanical University | : S | : S |
| | : Auburn University | : L | : S |
| Alaska | : University of Alaska | : S | : NC |
| Arizona | : University of Arizona | : L | : W |
| Arkansas | : University of Arkansas at Fayetteville | : M | : S |
| | : University of Arkansas at Pine Bluff | : S | : S |
| California | : University of California | : L | : W |
| Colorado | : Colorado State University | : M | : W |
| Connecticut | : University of Connecticut | : M | : NE |
| Delaware | : Delaware State College | : S | : NE |
| | : University of Delaware | : M | : NE |
| District of Columbia | : University of the District of Columbia | : S | : NE |
| Florida | : Florida Agricultural and Mechanical University | : S | : S |
| | : University of Florida | : L | : S |
| Georgia | : Fort Valley State College | : S | : S |
| | : University of Georgia | : M | : S |
| Guam | : University of Guam | : S | : W |
| Hawaii | : University of Hawaii | : M | : W |
| Idaho | : University of Idaho | : S | : W |
| Illinois | : University of Illinois | : L | : NC |
| Indiana | : Purdue University | : L | : NC |
| Iowa | : Iowa State University of Science and Technology | : L | : NC |
| Kansas | : Kansas State University of Agriculture and Applied Science | : M | : NC |
| Kentucky | : Kentucky State University | : S | : S |
| | : University of Kentucky | : M | : S |
| Louisiana | : Louisiana State University and Agricultural & Mechanical College, Baton Rouge | : L | : S |
| | : Southern University Agricultural and Mechanical College, Baton Rouge | : S | : S |

Footnotes appear at end of listing.

Size and regional classification of land-grant institutions, by State--
Continued

| State | Name of Institution | : | : | : |
|----------------|---|-----------|-----------|----|
| | | Size | Region | |
| | | <u>1/</u> | <u>2/</u> | |
| Maine | :University of Maine at Orono | : | S | NE |
| Maryland | :University of Maryland College Park | : | L | NE |
| | :University of Maryland-Eastern Shore | : | S | NE |
| Massachusetts | :Massachusetts Institute of Technology | : | S | NE |
| | :University of Massachusetts | : | L | NE |
| Michigan | :Michigan State University | : | L | NC |
| Minnesota | :University of Minnesota | : | L | NC |
| Mississippi | :Alcorn State University | : | S | S |
| | :Mississippi State University | : | M | S |
| Missouri | :Lincoln University | : | S | NC |
| | :University of Missouri | : | L | NC |
| Montana | :Montana State University | : | S | W |
| Nebraska | :University of Nebraska-Lincoln | : | M | NC |
| Nevada | :University of Nevada | : | S | W |
| New Hampshire | :University of New Hampshire | : | M | NE |
| New Jersey | :Rutgers The State University | : | L | NE |
| New Mexico | :New Mexico State University | : | M | W |
| New York | :Cornell University | : | M | NE |
| North Carolina | :North Carolina Agricultural and Technical | : | | |
| | : State University | : | S | S |
| | :North Carolina State University at Raleigh | : | M | S |
| North Dakota | :North Dakota State University | : | S | NC |
| Ohio | :Ohio State University | : | L | NC |
| Oklahoma | :Langston University | : | S | S |
| | :Oklahoma State University | : | L | S |
| Oregon | :Oregon State University | : | M | W |
| Pennsylvania | :Pennsylvania State University | : | L | NE |
| Puerto Rico | :University of Puerto Rico Mayaguez | : | S | S |
| | : | : | : | |

Footnotes appear at end of listing.

Size and regional classification of land-grant institutions, by State--
Continued

| State | Name of Institution | Size | Region |
|----------------|--|-----------|-----------|
| | | <u>1/</u> | <u>2/</u> |
| Rhode Island | University of Rhode Island | M | NE |
| South Carolina | Clemson University | M | S |
| | South Carolina State College | S | S |
| South Dakota | South Dakota State University | S | NC |
| Tennessee | Tennessee State University | S | S |
| | University of Tennessee at Knoxville | L | S |
| Texas | Prairie View Agricultural & Mechanical University | S | S |
| | Texas A&M University | L | S |
| Utah | Utah State University | S | W |
| Vermont | University of Vermont and State Agricultural College | S | NE |
| Virgin Islands | College of the Virgin Islands | S | S |
| Virginia | Virginia Polytechnic Institute & State University | L | S |
| | Virginia State College | S | S |
| Washington | Washington State University | M | W |
| West Virginia | West Virginia University | M | NE |
| Wisconsin | University of Wisconsin-Madison | L | NC |
| Wyoming | University of Wyoming | S | W |

1/ Size categories include: S = under 10,000 full-time-equivalent students
 M = 10,000 - 20,000 full-time-equivalent students
 L = over 20,000 full-time-equivalent students

2/ Regions include: NE = Northeast
 NC = North Central
 S = South
 W = West

APPENDIX S

Higher-Education Participation in Agriculture and Engineering

Purpose

This appendix supplies background information on the number of students participating in higher education in the Nation, focusing particularly upon agriculture and engineering. Trend data are reported, when available, to depict the changes occurring in participation. The contribution made by land-grant institutions to the national picture is described.

Methods

The enrollment and degree data for this chapter were collected by the Higher Education General Information Survey (HEGIS). Its auspices and procedures are set forth in Appendix R. The HEGIS data used in this appendix were processed by three different sources in ways not completely comparable. To explain, in some cases the text draws upon unpublished tabulations prepared especially for this report by the National Center for Education Statistics, referring to the total United States and outlying areas. In other instances, the text relies on published tabulations whose data refer solely to the United States. Finally, for trend information on degrees conferred in agriculture and natural resources, the text draws upon HEGIS data prepared by the Manpower Assessment Project of the U.S. Department of Agriculture under the direction of Dr. Kyle Jane Coulter. That project's designation of land-grant institutions appears in Appendix R, since it differs somewhat from that used for preparing this report, as shown in Appendix K. The reader is cautioned against comparing noncomparable data sets.

Trends in Enrollment in Higher Education

Since 1960, enrollment in higher education in the United States has more than tripled. Collectively, institutions of higher education reported an enrollment of 11.4 million in 1978, compared with 3.6 million students in 1960 (see Table S-1). During that period, 4-year institutions --those offering 4 or more years of higher education--grew rapidly, from 3.2 to 7.3 million, though not as fast as 2-year institutions. The latter increased enrollment from less than one-half million in 1960 to over four million in 1978.

From 1960 to 1975, enrollment at land-grant institutions grew at virtually the same rate as other 4-year institutions. 1/ Between 1975 and 1978, however, enrollment at land-grant institutions declined by approximately 55,000 students, while enrollment at other 4-year institutions grew by nearly 94,000.

1/ All land-grant institutions are classified as 4-year institutions.

TABLE S-1

Fall enrollment in all institutions of higher education, 4-year institutions, and land-grant institutions:
United States and outlying areas, 1960-1978

| Item | 1960 | 1965 | 1970 | 1975 | 1978 |
|---|-----------|-----------|-----------|------------|------------|
| Total enrollment, all institutions of higher education | 3,610,007 | 5,967,411 | 8,649,368 | 11,290,719 | 11,393,007 |
| Total enrollment, all 4-year institutions ^{1/} | 3,156,390 | 4,725,027 | 6,352,406 | 7,288,749 | 7,327,118 |
| Total enrollment, all land-grant institutions | 629,307 | 925,563 | 1,241,898 | 1,436,212 | 1,381,196 |
| Enrollment at land-grant institutions, as a percentage of enrollment in all institutions of higher education | 17.4 | 15.5 | 14.4 | 12.7 | 12.1 |
| Enrollment at land-grant institutions, as a percentage of enrollment in all 4-year institutions ^{1/} | 19.9 | 19.6 | 19.6 | 19.7 | 18.9 |

^{1/} "Four-year institutions" includes all institutions offering 4 or more years of higher education. This category includes all land-grant institutions.

NOTE: Includes total enrollment at all 117 land-grant campuses for 1978 and, where applicable, for prior years as specified.

SOURCE: Compiled by Bankhead-Jones Project, U.S. Department of Agriculture from the archives of the National Center for Education Statistics.

Land-grant institutions' share of all students enrolled in higher education has decreased since 1960, as has their share of students attending 4-year institutions. In 1960, land-grant institutions enrolled slightly more than one out of every six students in the Nation (17.4 percent). As of 1978, this had changed to a little less than one out of eight students (12.1 percent). Of all attendees at 4-year institutions, land-grant colleges and universities enrolled 19.9 percent in 1960, compared with 18.9 percent in 1978.

Agriculture Education

Trends in Participation in Agriculture and Natural Resources in Higher Education

Slightly more than 147,000 students were enrolled in agriculture and natural resources (hereafter referred to as agriculture) throughout the United States and outlying areas in fall 1978. This constitutes a decline of 6 percent in agriculture enrollment since 1976, paralleling a widespread slowdown in higher education.

The recent decline stands in sharp contrast with the previous decade, when agriculture in higher education underwent a period of unprecedented growth. Information on this last point comes from a count of the degrees awarded in agriculture. The trend in bachelor's degrees since 1955 appears in the tabulation below.

| <u>Year</u> | <u>Number of bachelor's degrees awarded in agriculture and natural resources: United States</u> |
|-------------|---|
| 1955-56 | 6,431 |
| 1965-66 | 7,861 |
| 1975-76 | 19,402 |

Bachelor's degree output increased 147 percent during the most recent decade shown, compared with 22 percent the previous decade. Degrees in agriculture conferred at the master's and doctor's level also increased, though not as sharply as at the bachelor's level.^{2/}

Specialization

Agricultural studies include a variety of specialties, ranging from animal science to forestry and wildlife management. Recent degree data show the relative concentration in the following tabulation.

^{2/} W. Vance Grant and C. George Lind, Digest of Educational Statistics, 1979. Washington, D.C.: National Center for Education Statistics, U.S. Department of Health, Education, and Welfare, 1979, Table 117, p. 123.

Bachelor's degrees awarded:
United States and outlying
areas, 1977-78

Specialty

| | | |
|--|--------|--------|
| Total | 22,724 | 100.0% |
| Agriculture, general | 1,948 | 8.6 |
| Agronomy | 1,609 | 7.1 |
| Soils Science | 620 | 2.7 |
| Animal Science | 4,122 | 18.1 |
| Dairy Science | 283 | 1.2 |
| Poultry Science | 116 | 0.5 |
| Fish, Game, and Wildlife management | 1,526 | 6.7 |
| Horticulture | 1,844 | 8.1 |
| Ornamental horticulture | 585 | 2.6 |
| Agricultural management | 356 | 1.6 |
| Agricultural economics | 1,697 | 7.5 |
| Agricultural business | 1,078 | 4.7 |
| Food science and technology | 717 | 3.2 |
| Forestry | 2,671 | 11.8 |
| Natural resources management | 2,268 | 10.0 |
| Agriculture and forestry technologies | 162 | 1.0 |
| Range management | 221 | 1.0 |
| Other | 901 | 4.0 |

Of the nearly 23,000 bachelor's degrees awarded in agriculture in 1977-78, animal science constituted the largest field. Together, animal science, forestry, natural resources management, general agriculture, and horticulture made up the majority of bachelor's degrees conferred that year in agriculture. All but 9 percent (those in general agriculture) majored in some specialty.

A somewhat different set of fields led in the 5,007 advanced degrees awarded for that year. Ranked by the number of degrees conferred, agricultural economics, agronomy, animal science, and forestry together constituted the majority of advanced degrees conferred in 1977-78.

Trends in Agricultural Specialization

Agricultural specialties grew in recent years at an average rate of 61 percent at the bachelor's level, 32 percent at the graduate level, according to a comparison of degrees awarded in 1971-72 and 1976-77. Several of the larger specialties grew by more than 50 percent at the bachelor's level during this 6-year period, including the following:

| <u>Specialty</u> | <u>Percent Increase</u> |
|------------------------------|-------------------------|
| Agronomy | 56 |
| Animal Science | 52 |
| Horticulture | 349 |
| Natural Resources Management | 269 |

Several smaller fields also grew rapidly during the same period:

| <u>Specialty</u> | <u>Percent Increase</u> |
|------------------------------|-------------------------|
| Soils science | 96 |
| Ornamental horticulture | 182 |
| Food sciences and technology | 120 |

Land-Grant Institutions' Contribution to Agricultural Education

Of all those enrolled in agriculture in fall 1978, 60 percent attended land-grant institutions. Land-grant institutions conferred 73 percent of all bachelor's degrees awarded in agriculture in 1977-78 in the United States and outlying areas. The comparable statistics for the master's and doctor's levels were 81 and 95 percent. In short, land-grant institutions dominated all degree levels in agriculture, particularly the graduate level.

Moreover, land-grant institutions expanded their dominance in agricultural degrees over the past decade. Trend data for 1971-72 to 1976-77 reveal that the land-grant share of bachelor's degrees increased from 59 to 66 percent during that period. The land-grant share of master's and doctor's degrees in 1971-72 was 68 and 73 percent respectively, rising in 1976-77 to 73 and 83 percent.

Engineering Education

Trends in Engineering Enrollment in Higher Education

Slightly more than 521,000 students enrolled in engineering throughout the United States and outlying areas in fall 1978. In contrast to the general slowdown in higher education, engineering enrollment has increased by 14 percent since 1976.

The long-term trend in engineering enrollment is one of periodic growth and decline. The data that follow show the trend.

| <u>Year</u> | Engineering enrollment: <u>United States</u> |
|-------------|---|
| 1957 | 294,877 |
| 1961 | 270,902 |
| 1965 | 309,083 |
| 1969 | 318,499 |
| 1973 | 259,673 |
| 1977 | 371,277 |

The years 1957, 1969, and 1977 stand at or near periods of peak growth, with enrollment declines falling in the intervening years. ^{3/}

Specialization

The HEGIS taxonomy lists over 20 specialties in engineering. Recent degree data show the relative concentration. According to Table S-2, electrical engineering was the largest field at all degree levels. Together, electrical, civil, and mechanical engineering comprised the majority of bachelor's and master's degrees awarded in 1977-78. In comparison with agriculture, where 18 percent of the degrees awarded were at the postbaccalaureate level, in engineering 25 percent were postbaccalaureate degrees.

Land-Grant Institutions' Contribution to Engineering Education

Of all engineering enrollees in fall 1978, 30 percent attended land-grant institutions. Land-grant institutions conferred 35 percent of the bachelor's degrees awarded in engineering in 1977-78 in the United States and outlying areas, according to Table S-2. The comparable statistics for the master's and doctor's levels were 37 and 51 percent. Since land-grant institutions in 1977-78 awarded 20 percent of the degrees conferred in all disciplines in the United States and outlying areas at the bachelor's, master's, and doctor's levels, the tendency of land-grants to specialize in engineering, as in agriculture, is evident.

Land-grant institutions conferred at least half the bachelor's degrees awarded in 1977-78 in the following specialties: agricultural, geological, mining and mineral, and nuclear engineering. In five other specialties, land-grant institutions awarded at least two-fifths of the bachelor's degrees.

^{3/} Digest of Educational Statistics, 1979, op. cit. Table 91, p. 96.

Table S-2--Percent of degrees in engineering awarded by land-grant institutions by degree level and specialty:
United States and Outlying Areas, 1977-78

| Specialty | Number of degrees | Percent awarded by land-grant institutions | Bachelor's | Master's | Doctor's |
|---|-------------------------|--|------------|----------|----------|
| Total | 56,009 | 35.0 | 16,409 | 37.3 | 2,440 |
| Engineering, general | 3,329 | 13.7 | 1,593 | 22.8 | 235 |
| Aerospace, aeronautical astronautical engineering | 1,186 | 27.3 | 411 | 31.6 | 115 |
| Agricultural engineering | 551 | 86.6 | 144 | 97.2 | 37 |
| Architectural engineering | 326 | 34.4 | 18 | 50.0 | 0 |
| Bioengineering and bio- medical engineering | 350 | 8.0 | 191 | 18.9 | 61 |
| Chemical engineering | 4,615 | 44.6 | 1,237 | 38.6 | 259 |
| Petroleum engineering | 590 | 38.6 | 98 | 27.5 | 21 |
| Civil, construction, and transportation engineering | 9,265 | 45.1 | 2,691 | 45.8 | 277 |
| Electrical, electronics and communications engineering | 11,213 | 36.5 | 3,742 | 33.7 | 503 |
| Mechanical engineering | 8,924 | 38.4 | 1,943 | 38.5 | 279 |
| Geological engineering | 157 | 57.3 | 52 | 69.2 | 0 |
| Geophysical engineering | 56 | 0.0 | 19 | 21.1 | 1 |
| Industrial and management engineering | 2,712 | 42.4 | 1,722 | 35.6 | 118 |
| Metallurgical engineering | 428 | 34.6 | 204 | 41.2 | 85 |
| Materials engineering | 234 | 31.6 | 224 | 45.1 | 114 |
| Ceramic engineering | 152 | 48.7 | 47 | 72.3 | 19 |
| Textile engineering | 60 | 40.0 | 9 | 0.0 | 1 |
| Mining and mineral engineering | 509 | 56.0 | 92 | 55.4 | 16 |
| Engineering physics | 236 | 37.7 | 106 | 14.2 | 37 |
| Nuclear engineering | 545 | 61.1 | 494 | 59.3 | 112 |
| Engineering mechanics | 176 | 30.7 | 152 | 51.3 | 78 |
| Environmental and sanitary engineering | 309 | 24.9 | 517 | 36.8 | 36 |
| Naval architecture and marine engineering | 567 | 0.0 | 75 | 48.0 | 3 |
| Ocean engineering | 162 | 19.1 | 110 | 77.3 | 20 |
| Engineering technologies | 8,787 | 17.5 | 360 | 14.2 | 3 |
| Other engineering | 578 | 23.9 | 158 | 18.4 | 20 |







R0000 123890



R0000 123890